

# IMPACT AND POLICY RESEARCH REVIEW

**IPRR**  
**VOL. 2 ISSUE 2**  
**JULY-DECEMBER**  
**2023**

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How far has India reached till now?**

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and its Effect on Marginalized Communities**

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# Impact and Policy Research Review (IPRR)



**IPRR Volume 2 Issue 2 (July-December 2023)**

Editors:

Simi Mehta

Soumyadip Chattopadhyay

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Impact and Policy Research Review (IPRR) (e-ISSN: 2583-3464) is a biannual research journal managed and published by IMPRI Impact and Policy Research Institute, New Delhi. IPRR hosts written contributions on topics having concrete implications for progressive development, covering a well-grounded policy analysis, that is interdisciplinary or focused on particular disciplines, for example, Economics, Politics, Governance, Geography, Sociology, Gender and Ethnic Discrimination, Development Studies, Environmental Degradation, Anthropology, and International Relations, with an expectation that all work is accessible to readers across the social sciences.

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## DR SOUMYADIP CHATTOPADHYAY

Soumyadip Chattopadhyay is an Associate Professor in Economics at the Department of Economics and Politics, Visva Bharati University, Santiniketan, West Bengal, and a Visiting Senior Fellow at IMPRI Impact and Policy Research Institute, New Delhi. He is the coordinator of the IMPRI Center for Habitat, Urban, and Regional Studies (CHURS). He was associated with the Graduate School of Geography, Clark University as a C.V. Raman Fellow, and with the Department of Urban Studies and Planning, the University of Sheffield as a Commonwealth Academic Fellow. His research interests lie in the field of development studies, specifically in urban finance, urban inequality, and ongoing transformations in urban governance in Indian cities. He is currently serving as one of the Associate Editors of the International Journal of Rural Management.

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# EDITORS' NOTE

Impact and Policy Research Review (IPRR)

IPRR Volume 2 Issue 2 (July - December 2023)

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We are delighted to present the second issue of volume two of the Impact and Policy Research Review (IPRR) Journal. As we navigate the ever-evolving landscape of scholarly research, this edition brings forth a diverse array of insightful contributions from esteemed authors around the globe.

In this issue, you will find a collection of articles that encapsulate the spirit of intellectual curiosity and rigorous inquiry. The topics covered span a wide range of disciplines, reflecting the multidimensional nature of contemporary research. Our contributors have explored new frontiers, challenged established paradigms, and offered innovative perspectives on issues that are central to their respective fields.

The editorial team has worked diligently to ensure the highest standards of quality and relevance in the selection of manuscripts. Each article has undergone a thorough peer-review process, and we extend our gratitude to our reviewers for their valuable insights and constructive feedback.

As we continue our commitment to fostering a platform for scholarly dialogue and knowledge dissemination, we invite our readers to engage with the content presented in this issue. We hope that the research findings and discussions herein will stimulate further exploration and contribute to the advancement of academic discourse.

We appreciate the dedication of our authors, reviewers, and editorial team in making this issue possible. Your passion for research and commitment to excellence are the driving forces behind the success of the IPRR Journal.

Thank you for your continued support, and we look forward to receiving your contributions for future issues.

With Gratitude,  
*Editors,*  
*Impact and Policy Research Review (IPRR)*

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## India's Energy Security and Renewable Energy Sector Growth:

### *How far has India reached till now?*

Aditi<sup>1</sup>

#### **Abstract**

Energy is at the heart of Climate change and a key element for the modern digitally oriented world of the Fourth Industrial Revolution. The constant rise in India's energy demand, growing urbanization, huge dependence on coal for energy needs, and its commitment to reduce greenhouse emissions by 2030 in the COP26 Summit, have put India in the spot to invest in alternative sources of Energy that are clean, affordable, and accessible. The growing notion of combating climate change and making energy accessible to all, India's announcement of the ambitious initiative of the International Solar Alliance, embraces the aim for "One World, One Sun, One Grid" in the COPE26 summit, itself manifests India's strategy for clean energy transition. So, the twin objective of meeting India's rising energy demand and combating climate change can be fulfilled by enhancing the capacity of renewable energy (solar, wind, hydro, etc.) in the current energy- mix of India. Hence, the insight tries to illustrate the current growth story of Renewable energy investment for energy transition by the government of India to enhance the country's Energy and further, it provides some suggestions as a way forward for policymakers. The potent questions such as Do renewable energy deployment in India has shown signs of growth? Will it be able to reduce the demand-supply gap in energy consumption in a sustainable manner? How does the government in India's investment policy and various programs play a pivotal role in diversifying India's energy mix through green energy transition strategies?

**Keywords:** Energy security, Renewable energy generation, Government programs and incentives

#### **Energy Security and Renewables**

Energy security is the key driver for energy transition worldwide. As the rising energy demand grows, renewable energy deployment coupled with investment in low-

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<sup>1</sup> Research Scholar, Dept. of HSS, Indian Institute of Technology Patna, Bihar  
Email: Aditi.phs17@iitp.ac.in

carbon technology is imperative for transformational growth. Energy security as defined by IEA (International Energy Agency). It is the availability of energy for people at an affordable cost. India's electricity sector is more coal-dominant but now the government channelized its efforts towards enhancement of renewable energy capacity. India ranked 4<sup>th</sup> largest in wind power and fifth in solar power generation capacity in the world in 2020 but still India's power requirement is estimated to be at 1,650,59 BUs in 2023 (IBEF, 2022).

India is also the third largest producer and consumer of electricity in the world. A reliable electricity supply for many consumers still lacking in India. India still relies on fossil fuels for electricity consumption, cooking, and heating. India's recent announcement about its aim to reach net zero emissions by 2070 and to meet 50% of its electricity requirements from renewable energy by 2030 has huge significance to combat problems of climate change (IEA, 2022). A new draft 'National Electricity Plan 2022' has been prepared that states that India plans no more fossil fuel power plants besides those under construction until 2027 and expects non-fossil fuel energy generation of around 44.7% out of total gross electricity generation by 2029-30 (Central Electricity Authority, 2022).

The year 2021 saw the inception of the biggest energy crisis, exacerbated by the Russian invasion of Ukraine in early 2022 and a huge disturbance in global trade. During this time India managed to become second largest Asian market and third largest globally for solar PV capacity, overtaking Germany for the first time and at the time when REN21's Renewable 2022 global status report 2022 sent an adverse report that global energy transition was not happening (The Economic Times, June 2022).

Moreover, India's huge shift to foreign investment by allowing 100% FDI in the renewable energy sector has been fundamental in the inclusion of private capital in building India's energy infrastructure for pioneering a new model of energy self-reliance. The electricity distribution companies are not in financially good condition. Moreover, the levels of pollution in Indian cities and rising energy consumption due to digital technologies have really impacted air quality and the supply gap of energy. Renewable makes energy accessible to all even making it easily available in rural areas.

India has made phenomenal growth in renewable energy deployment. The fall in prices for renewable energy, initiatives for attracting private investment like FDI (100%) in the energy sector, manufacturing of solar voltaic modules, tax incentives for investors and Production-linked incentives, etc., are the key drivers of green energy transition in India recently. Prime Minister Narendra Modi also talked about India's ambitious goal of enhancing India's renewable energy capacity to 500 gigawatts by the year 2030 at the COP26 Summit in Glasgow. According to IEA's Energy Policy Review report (2022), some important insights about India's tremendous record of expanding electricity accessibility by deploying renewable energy technologies are inspiring for many countries around the world. Some of India's energy sector reforms are appreciable such as introducing FDI in India's energy sector, advancing the power and gas market, addressing air quality, shifting

towards solar panel use at homes, offices, educational institutions, and markets, and promoting cleaner cooking and off-grid electrification.

Recently, one of the biggest steps taken by the Indian government is to advance the target of 20 percent ethanol blending in petrol till 2030. Also, domestic mining has been expedited for some important minerals like nickel, cobalt, and copper for building solar panels, EVs, wind turbines, and batteries. India has a huge energy demand; therefore, the Indian government speculates a higher oil dependency in the future and hence facilitates domestic reforms in building oil stocks with The Hydrocarbon Exploration and Licensing Policy (HELP). It also aims to enhance the share of natural gas in the country's energy mix from 6% to 15 % by 2030.

### **Current Progress in Renewable Energy Deployment**

India has made considerable progress in meeting the United Nations Sustainable Development Goals, Goal 7 of Delivering Energy Access. India's per capita carbon emission is 1.6 tonnes of Carbon dioxide, well below the global average of 4.4 tonnes. Products such as LEDs have radically increased rural energy access, helped create local manufacturing jobs, and provided energy-efficient lighting. Moreover, recent reports of IEA also show that India has invested highest in Solar PV than any other fossil fuel source. In 2019, India deployed 84 GW of grid-connected renewable electricity capacity, which is close to India's target of adding 450 GW of renewable energy capacity to the energy mix. In the future, the sharing business model like trading electric vehicles or excess solar energy on consumers' rooftops with the end consumer or in the neighborhood at a competitive price might be the new way of living (Aditi and Bharti (2022)).

There are some outstanding statistics that are reflected in the transformational efforts in India's endeavor of green energy transition strategy (Invest India, 2023; Central Electricity Authority, 2022b)

Some of them are listed below:

1. India is the 3<sup>rd</sup> largest energy-consuming country in the world and 3<sup>rd</sup> in renewable energy country attractive index in the year 2021.
2. In Renewable Energy Installed Capacity India stands 4<sup>th</sup> globally, 4<sup>th</sup> in wind energy, and 4<sup>th</sup> in solar energy (According to the REN21 Renewable 2022 Global Status Report).
3. India also emerged as the second largest market in Asia for new solar PV capacity and third globally. The total installations of renewable energy (60.4 GW) made India 4<sup>th</sup> ranked country in 2021 overtaking Germany for the first time.
4. India's installed capacity of renewable energy has increased by 396% in the last 8 years. The capacity has reached more than 174.53 GW, which is about the country's total capacity (as of February 2023).

5. Moreover, as the boost to foreign investment, FDI (Foreign direct investment) up to 100% is allowed in the renewable energy sector under an automatic route.
6. The proposal of 59 solar parks with an aggregate capacity of 40 GW (like Solar parks in Payagada, Kurnool)
7. In Union Budget 2023, 'Green growth' is one of the nodes of SAPTRISHI (7 priorities) initiative for the reduction of India's carbon emissions by 1 billion tonnes by 2030. The National Green Hydrogen Mission with a total outlay of Rupees 19,744 crores has also been approved.
8. Also, under the Atmanirbhar Bharat initiative, there is an imposition of a basic customs duty of 40 % on Solar PV modules and 25% on solar cells.
9. India's national grid interconnects Bhutan, Bangladesh, Myanmar, and Nepal. Now, India plans Indian national grid into a transformational grid by expanding it to Vietnam and Saudi Arabia to encourage carbon-neutral Solar power generation (Amiti Sen, Nov 2022).

## Future ahead

There are various challenges also like land acquisition issues, financial crunch, lack of transmission infrastructure, delays in payments, and delayed regulatory reforms. One of the major challenges is the huge investment gap. India is receiving around \$10 to \$15 billion annually but its requirement is around \$30 billion to \$ 40 billion (Myres and Shine, 2022). So, the right policy frameworks such as inducing more foreign or private sector involvement through better incentives like lower interest rates or tax rates for investment, etc, will give a boost to the capital inflows.

India's energy security can be seen in the framework of availability, accessibility, and affordability. The inducement of renewable energy in India's energy mix will add an environmental aspect and is vital for rural electrification. Recently, the secretary of the Ministry of Power in India explained that the energy sector in India requires about 80 % of green finance for energy transition. The main thrust areas are to increase power generation capacity to 50% from the current 41% and secondly, to reduce carbon emissions by 45% in 2030 (Baruah and Bhaskar, Nov 8, 2022). So, reforms like putting government electricity connections on prepaid may only exclude hospitals, drinking water, and street lights.

India should also induce more FDI in the energy sector to reduce the financing deficiency and utilize the technological advancement of foreign investment. More tax incentives, subsidies, land reforms, and manufacturing facilities need to be reformed to attract more investors due to cost and resource advantage. A system like monitoring electricity use and timely payment of electricity bills is required. The challenges like insufficient investment in modern energy infrastructure despite allowing 100% FDI into the energy sector, exorbitant prices of petroleum products, and huge dependence on oil imports, are potent enough reasons to diversify our

energy generation resources. Initially, Electricity consumption in India is only going to rise with the rise in the Gig economy, online education, electric vehicle use etc. so, a huge investment to generate electricity is inevitable for India. The importance of green bonds, carbon tax, and the responsibility of businesses towards environment-friendly production will boost sustainable energy consumption.

We cannot think of completely replacing coal and petroleum products for energy generation in India as if now seeing a huge energy demand deficit, but today's investment in renewable energy can reduce our reliance on fossil fuel products. The clean energy transition is environment friendly, provides energy security, eradicates poverty, reduces air pollution, mitigates greenhouse emissions, and reduces dependence on coal for energy generation.

The estimates of CEA show that by 2030, the share of renewable energy generation will increase to 44% from the current 18% and thermal energy generation will reduce to 52% from 78%. India has enormous potential for energy security with homegrown energy. So, the twin objective of meeting its energy demand and resolving the climate change issue needs to be met through additional renewable energy capacity.

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**Question of Delimitation:  
New Parliament Building and old Regional Fault lines**

Amod Moharil<sup>1</sup>

**Abstract**

*As the year 2026 approaches, the question of delimitation will become more prominent, determining whether parliamentary representation among states should be redistributed based on recent population figures. Currently, parliamentary seats are distributed according to the 1971 census. A freeze was imposed on delimitation, set to end in 2026. Due to regional variation in population growth across states, delimitation based on the recent census will result in Northern states gaining increased parliamentary representation at the cost of Southern states. This would significantly alter India's political landscape. This article briefly explains the background of the delimitation process, its political significance, and some of the major arguments around it. As the inauguration of the new parliament building with its increased seating capacity brings India one step closer to delimitation, the article argues for and contributes to the dialogue on the issue of delimitation.*

**Keywords:** Delimitation, New Parliament, Federalism

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**Introduction**

The Central Vista project has been widely discussed, mainly due to its criticism because of the expenditure involved and the way the inauguration of the new parliament building was carried out. However, the project has significant implications for Indian polity. The new parliament building, with its increased seating capacity, is one more step toward the delimitation of parliamentary seats among states in India.

Electoral democracy is based on the principle of 'one person, one value.' For this to manifest in actuality in the Parliamentary system, members of Parliament should ideally be elected from constituencies that have roughly similar populations.

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<sup>1</sup> PhD student at Ashank Desai Centre for Policy Studies, IIT Bombay.  
Email: amod.moharil@iitb.ac.in

Hence, Article 81 of the Constitution says, 'There shall be allotted to each State a number of seats in the House of the People in such a manner that the ratio between that number and the population of the state is, so far as practicable, the same for all States'. To account for changes in population, a Delimitation exercise should be conducted after every census for rearranging constituencies.

Though complete adherence to the ideal of seats in proportion to the population was not possible in this regard, considering that India had states and union territories with very small populations. States like Nagaland, Manipur, Mizoram, Goa, and Himachal Pradesh, along with union territories like Delhi, Pondicherry, Diu, and Daman, were together given 35 seats in Lok Sabha. An exception was made for states with less than 6 million populations from the general rule of representation in proportion to the population. It is important to note that these small states were overrepresented at the cost of other larger states.

### **Uneven population growth and the delimitation freeze**

Concerns were expressed regarding this system during the 1970s when the Government of India undertook family planning initiatives. Due to various socio-political, cultural, and economic reasons, Southern States were more successful in reducing population growth compared to others. Hence, considering updated population figures as per the recent census as a basis for seat reallocation would have resulted in an increase in parliamentary seats for the northern states at the cost of Southern States. Southern States opposed any such possible reduction in their seats, calling it a 'penalizing for the good work they did in population control.' A compromise came in the form of the 42nd constitutional amendment brought in 1976, which, along with other things, put a freeze on any further delimitation of seats among states for the next 25 years. That means, irrespective of varied population growth between states, Lok Sabha seats, Rajya Sabha seats, and the value of the vote of each MLA of state assemblies in the matter of presidential elections will be decided based on the 1971 census. In 2001, when this freeze was supposed to end, it was further extended for 25 years with the 84th Amendment.

This freeze ends in 2026. If not extended even further, the seats of the parliament should be redistributed among states as per the next census, that is, the 2031 census. To make such an exercise more palatable to states whose parliamentary representation will be reduced, a suggestion was made that rather than decreasing the parliamentary seats of certain states, more seats should be added to the parliament for allocation to states accounting for their increased population. However, adding new seats to parliament was not possible as the old parliament building was at its maximum seating capacity with 543 seats in Lok Sabha. Lack of seating space is one of the chief reasons given behind building the new Parliament, which now has a maximum seating capacity of 1350. If the Delimitation freeze, which ends in 2026, is not extended even further, seats of the Parliament will be reallocated among States based on the 2031 Census, as shown in Table 1.



**Table 1:- Lok Sabha representation of states post delimitation as per projected population of 2031.**

Larger states which got seats based on the principle of population in 1971	Current Seat allocation to States based on the 1971 Census.	Predicted seats if the freeze is Lifted		Percentage of change in Loksabha representation
		Parliament's total seats are unchanged	Seats with an Increase in Parliament seats.	
Bihar	40	51 (+11)	77	27.5%
Rajasthan	25	31 (+6)	48	24%
Haryana	10	12 (+2)	18	20%
MP	29	34 (+5)	51	17.24%
Jharkhand	14	16 (+2)	24	14.28%
UP	80	91 (+11)	137	13.75%
Chhattisgarh	11	12 (+2)	18	9.09%
Gujarat	26	28 (+2)	42	7.69%
Maharashtra	48	48 (0)	73	0%
Assam	14	14 (0)	21	0%
Karnataka	28	26 (-2)	39	-7.15%
Punjab	13	12 (-1)	17	-7.7%
West Bengal	42	37 (-5)	56	-11.91
Telangana	17	14 (-3)	21	-17.65
Uttarakhand	5	4 (-1)	7	-20
Andhra Pradesh	25	20 (-5)	30	-20
Odisha	21	16 (-5)	25	-23.81
Tamil Nadu	39	28 (-11)	43	-28.21
Kerala	20	13 (-7)	20	-35
Total	507	507	767	

- Calculations are done by the Author on the basis of 'Population Projections for India and states 2011-2036' published by the Census of India authority and the Ministry of Health and Family Welfare.
- For ease of understanding Telangana, Uttarakhand, Jharkhand, and Chhattisgarh are shown in the 1971 table despite they being not existent then.
- The table includes only big States for whom Population is taken as the basis for Delimitation

## Politics of Freeze

States in India are not just administrative units created for governmental efficiency. But they are arranged on the cultural lines, which primarily include language. Various interstate fault lines around issues like the status of the Hindi language are manifestations of this diversity. A simple look at Table 1 shows that gainer States are all Hindi-speaking states (With the sole exception of Gujarat). Any change in the

parliamentary representation of states using the post-1971 census will impact India's political culture, altering power relations between Hindi and non-Hindi-speaking states.

And BJP as a party with its base in the Hindi heartland is bound to benefit from any such increase in northern representation. BJP is the dominant party in all the states gaining parliamentary representation in case of delimitation. Out of a total of 235 Lok-shabha seats in these states, BJP won 201 and 187 seats in the 2014 and 2019 Lok Sabha elections respectively. Hence delimitation becomes a highly political question with the BJP having a clear political and ideological advantage in favor of a delimitation exercise. In fact, it can be argued that such political considerations were always present in the issue of delimitation. Even when the Indira Gandhi government brought a freeze on delimitation in 1976 to prevent a reduction in parliamentary representation of Southern states. Those were the very states where INC performed well in the 1977 general election (McMillan 2000).

## Conclusion

Both Democracy and Federalism have been among the founding principles of the Indian republic. The situation that emerges out of the regional variation in fertility rate has brought these two values into conflict with each other. Continuing with the present system account for going away from the democratic ideal of 'One Person - One Value'. By 2031, the average constituency size in Bihar will be nearly twice as compared to Kerala. Conducting a delimitation exercise with updated population figures will alter the federal balance in favor of already dominant Northern states.

As a compromise between these two positions, McMillan (2001) argues that Lok Sabha gets its legitimacy out of the fact that it is a body that directly represents the will of the people. The present system of malapportionment reduced the representativeness of the Loksabha, which undermines its legitimacy. He suggests that Rajya-Sabha should be used to address concerns of the states losing representation due to delimitation with assurances that contentious policies around language and federalism concerning non-Hindi states shall not be unilaterally passed. Since Rajya-Sabha is not a directly elected body, there is less threat to its legitimacy. In a study of malapportionment in various political systems in the world, upper chambers are commonly understood to over-represent minority groups who otherwise may not get adequately represented. While malapportionment is less in the lower house.

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## Policy Perspectives

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### Assessing the Impact of Kanyashree Prakalpa on the Social Development of West Bengal

Joy Karmakar<sup>1</sup>

#### Abstract

*Introduced by the West Bengal government in 2012, Kanyashree Prakalpa (KP) is unique. A conditional cash transfer program for adolescent girls ages 13 to 19. This program has two purposes. Promote secondary education for women and end marriage for girls before the age of 18. This paper attempted to see the impacts of the scheme on the social development of the state. From the analysis, it is revealed that after the introduction of the program child marriage significantly decreased in a few districts but it is still practiced in most of the districts. In addition, the scheme failed to reach the remote corners of the districts and to the marginal groups.*

**Keywords:** Child Marriage, Kanyashree, Social Development, Conditional Cash Transfer.

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One of the significant impacts noticed during and after the COVID-19 pandemic was the growing number of child marriages and child trafficking in West Bengal. It was reported in the popular daily newspaper that school closures due to COVID-19 have forced so many boys and girls out of school. COVID-19 has led to an increase in child marriage and trafficking in districts like South 24 Parganas, Dakshin Dinajpur, Malda, and Murshidabad (Singh, 2020). More than 500 cases of child marriage have been reported in the state since mid-March of 2020, when the nationwide COVID-19 lockdown was enforced. State govt. officials claimed that in most cases, underage girls were married off to families who had lost their income due to the complete shutdown. Although travel and movement were restricted, child marriages have not decreased amidst the lockdown as well in the post-lockdown period. Some girls marry young because families find it difficult to bear their expenses, while others

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<sup>1</sup> Lecturer, Serampore College, Hooghly, India  
Joykarmakar49@gmail.com

flee from home to tie the knot with partners of their choice. The situation has become even more critical for communities living in the ecologically fragile Sundarbans delta region, where agriculture has become impractical as water salinity increased due to sea level rise. As a result, people try to marry off their young daughters, believing that it will help them settle down and also relieve them of the "burden" (PTI, 2020). In fact, the Calcutta High Court showed concern over growing numbers of child marriages and noted the sensitive role of the *pradhans* and members of *panchayats* in protecting children and preventing child marriages (Singh, 2020).

Introduced by the West Bengal government in 2012, *Kanyashree Prakalpa* (KP) is unique. A conditional cash transfer program for adolescent girls ages 13 to 19 that offers two tiers of scholarships. This program has two purposes. Promote secondary education for women and end marriage for girls before the age of 18. The scheme has two power components. The first is a cash benefit paid annually to girls in the target age group for each year of continued education, provided that they are unmarried at the time. The second benefit is her one-time grant paid to unmarried girls between the ages of 18 and 19 who are enrolled in an educational institution. *Kanyashree Plus* makes the program even more effective through the graduation strategy. Graduation is defined as the process of reducing vulnerability so that people can transition from providing social protection to productive and resilient lives. Therefore, it is apparent that there is an effort on behalf of the State government to change the social situation in the state. In 2019-20 the program sanctioned more than 3 million scholarship (Including K-1 and K-2<sup>2</sup>) grants for unmarried girls across the state.

Within this background, this paper tried to understand whether the *Kanyashree Prakalpa*- a conditional cash transfer program, made any difference to improve the situation or not. In addition, it will try to understand the regional differences that emerged after the introduction of *Kanyashree Prakalpa* in the province. After the introductory section, the second section explains the methodology of the paper, which includes the study area, data, and methods. The third section conceptualizes the *Kanyashree Prakalpa* as part of social development and analyzes how 'intervention' played a crucial role in reducing social ills like child marriages. The fourth section examines the situation of child marriage in the state before and after the introduction of *Kanyashree Prakalpa*. The fifth section discusses the challenges of the scheme and thereafter, a conclusion is made based on the above analysis.

## Data and Methods

The paper is based on the state of West Bengal. Currently, it has 23 districts and the child population is unevenly distributed among the districts. The rural population in

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<sup>2</sup> K-1 is Annual scholarship of INR 1000 to unmarried girls aged 13-18 years enrolled in Grades VIII-XII or equivalent from August 2018. K-2 One-time grant of INR 25,000 to unmarried girls aged 18 years pursuing education, vocational / technical training / sports

the state is more than 68 percent. There are more than 18.2 million people who belong to the age group of 10 to 18 years of age. Data has been collected from different sources, including the Census of India, the National Family Health Survey (NFHS), the Annual report of *Kanyasree Prakalpa*<sup>3</sup> and the Unified District Information System for Education Plus. To understand the effectiveness of the *Kanyasree Prakalpa*, at first the situation before the introduction of the scheme has been analyzed through indicators like the prevalence of child marriage. Since one of the objectives of this scheme was to curb child marriage, gender-based distribution of child marriage, rural and urban distribution of child marriage, child marriage across religions as well as district-wise distribution of child marriage are examined. From 10 to 19 years age group of people is considered as child and marriages within that age group are considered as child marriage. In India official age of marriage for women begins from 18 and in the case of men it is 21 years but sometimes it varies with religion. Thereafter, the availability of funds for *Kanyasree Prakalpa* and its distribution across the district has been analyzed. To understand the situation after the introduction of *Kanyasree Prakalpa* several other indicators have been taken into consideration. The following indicators are used to assess the situation across the district.

1. Female population age 6 years and above who ever attended school (%)
2. Women age 20-24 years married before age 18 years (%)
3. Women aged 15-19 years who were already mothers or pregnant in 2019-20

Some of the above-noted indicators are supposed to be affected directly by conditional cash transfer while other indicators indirectly affect the situation. These indicators are created by NFHS and data collected in 2015-16 and 2019-20. Therefore, a comparison between these two years will help us to distinguish the impact of the project.

### Conceptualizing Social Development

At the center of the development debate is the idea of social change and how it impacts societies. Sen (1999) describes the development in terms of human capabilities and sees it as a bundle of freedoms. He identified five types of freedoms: 1. Political freedom, 2. Social opportunities 3. Economic Facilities 4. Transparency guarantee 5. Protective security. Development is achieved through the eradication of poverty, social deprivation, tyranny, and lack of economic opportunities. Also, it is important that public policy promotes human capabilities and material freedom in general and works through the promotion of interconnected instrumental freedoms.

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<sup>3</sup> In this scheme two conditional cash transfers are provided - an Annual Scholarship of Rs. 1,000/- to girls between the ages of 13 and 18, and a One-Time Grant of Rs. 25,000/- to girls who have reached age 18. The cash transfers are contingent upon the girls being in education and unmarried at the time.

“Social development” refers to many of the non-economic processes and outcomes of development including reduced vulnerability; inclusion; well-being; accountability; and a human-centered approach and freedom from violence (The World Bank, 2021). It fundamentally deals with human rights, formal and informal power relations, inequality, and opportunities to create more equality between individuals and groups within society. Development actors have attempted to integrate the lens of social development through approaches such as human rights-based approaches, political economic analysis, inclusive institutions and good governance. The literature advocates cross-sectoral approaches, such as working with governments and other sectors of society to address impacts outside the human development sector.

Midgley (2014) identified various aspects of social development: First, social development must focus on social transformation. Second, the process of social change in social development is gradual in nature. Third, the social development process is part of a multifaceted process consisting of social, political, economic, cultural, environmental, gender and other dimensions integrated and harmonized. Fourthly, the process of social development is interventionist which requires human agency in the form of projects, programmes policies and plans that achieve social development. Fifth, intervention in the social development process is acting as an investment that positively contributes to economic development.

Therefore, *Kanyasree* Prakalpa is a project equipped as an ‘intervention’ to achieve social development gradually. It is an investment that is supposed to positively contribute to economic as well as social development in the state. However, there are definite concerns about its ability to curb child marriage. There is a consensus among experts and activists that simply providing cash benefits is not enough when it comes to underage marriage, a multifaceted and complex phenomenon. It's not hard to see why. On the one hand, overlapping problems such as poverty, a deep-seated lack of security, and a lack of bodily autonomy make young girls vulnerable to early marriage (Telegraph, 2019).

### **Situation Before and After ‘Intervention’**

It is well known that social development begins with an analysis of the pre-existing situation that social development seeks to change. Many scholars use the term underdevelopment to connote such a pre-existing situation. Proponents of social development do not believe that social development occurs naturally but that it requires intervention by the state or some other agency. Modernization theorists like Nurkse (1953) argued that economic growth can only occur if radical measures are introduced. Others have placed more emphasis on removing strictures of the traditional culture which hinder progress. Therefore, conditional cash transfer is a radical measure taken by the government of West Bengal to change the prevalence of child marriage. Following Table 1 is the overall child marriage situation in the state.

*Table 1: Gender-wise distribution of Child Marriages in West Bengal*

West Bengal	Age between 10-19 Years			
	Currently Married	Widowed	Separated	Divorced
Total in percentage	8.82	0.13	0.08	0.04
% of Female	14.95	0.20	0.11	0.06
% of Male	3.05	0.06	0.05	0.01
Population between 10-19 years of age	18214554			

Source: Census of India, 2011

An overview of Table 1 shows that out of the total population of 10-19-year-olds in West Bengal, 8.82% are currently married, 0.13% are widowed, 0.08% are separated, and 0.04% are divorced. Furthermore, the table also gives the percentage of females and males in each marital status category. Among females in the 10-19 age group in West Bengal, 14.95% are currently married, 0.20% are widowed, 0.11% are separated, and 0.06% are divorced. Among males, 3.05% are currently married, 0.06% are widowed, 0.05% are separated, and 0.01% are divorced. The above figure indicates that in West Bengal under-age girl marriage is one of the highest in India. Table 2 shows the spatial distribution of child marriage in the state.

Table 2: Rural and Urban Distribution of Child Marriages in West Bengal

West Bengal	Age between 10-19 Years			
	Currently Married	Widowed	Separated	Divorced
Rural Area	9.41	0.12	0.08	0.04
Urban Area	7.33	0.16	0.10	0.03

Source: Census of India, 2011

It is evident from Table 2 that child marriage is highly prevalent not only in rural areas but also in urban areas. However, the proportion of child marriages in rural areas (9.41%) is comparatively higher than in urban areas (7.33%). The share of divorces is slightly higher in rural areas compared to urban areas. The percentage of widowed individuals in this age group is very low, with only 0.12% and 0.16% in rural and urban areas respectively. Similarly, the percentages of separated and divorced individuals are also very low, indicating that marriage dissolution is rare among this age group.

Table 3: Religious Distribution of Child Marriages in West Bengal

West Bengal	Age between 10-19 Years			
	Currently Married	Widowed	Separated	Divorced
Hindu	8.53	0.14	0.08	0.03

Muslims	9.52	0.10	0.08	0.05
Christians	6.46	0.16	0.11	0.03
Others	7.51	0.15	0.08	0.05

Source: Census of India, 2011

The above data shows that a higher percentage of Muslims aged between 10-19 years are currently married (9.52%) compared to Hindus (8.53%), Christians (6.46%), and Others (7.51%). The percentage of widowed individuals is very low across all religious groups, ranging from 0.10% to 0.16%. It is clear from the data that child marriage is prevalent across all the religions in the state. However, it is the highest among the Muslim population, followed by the Hindu and Christian populations. Likewise, cases of divorce are relatively higher among Muslims, followed by Hindus and Christians.

Table: 4 Child Marriage across the Districts of West Bengal

District	Rural Area		Urban Area	
	Male Married (10-19)	Female Married (10-19)	Male Married (10-19)	Female Married (10-19)
Darjiling	13.02	50.04	8.87	44.78
Jalpaiguri	11.20	60.37	7.94	55.33
Koch Bihar	11.49	71.21	5.83	52.21
Uttar Dinajpur	9.91	64.16	7.38	52.65
Dakshin Dinajpur	12.43	72.64	5.75	55.32
Maldah	13.10	70.84	10.77	61.40
Murshidabad	17.84	76.78	13.57	67.09
Birbhum	13.65	74.20	9.83	62.75
Bardhaman	11.76	72.87	8.63	55.25
Nadia	12.30	74.39	6.86	60.79
North 24 Parganas	12.94	73.41	5.87	47.05
Hugli	8.43	69.42	6.64	51.09
Bankura	9.65	70.22	6.06	55.29
Puruliya	12.43	66.09	8.99	55.61
Haora	7.87	66.67	7.03	52.12
Kolkata	NA	NA	7.60	39.44
South 24 Parganas	13.07	72.09	8.72	56.75
Paschim Medinipur	9.80	72.21	6.60	53.47
Purba Medinipur	8.53	75.97	8.44	74.84
Mean	11.63	69.64	7.97	55.43

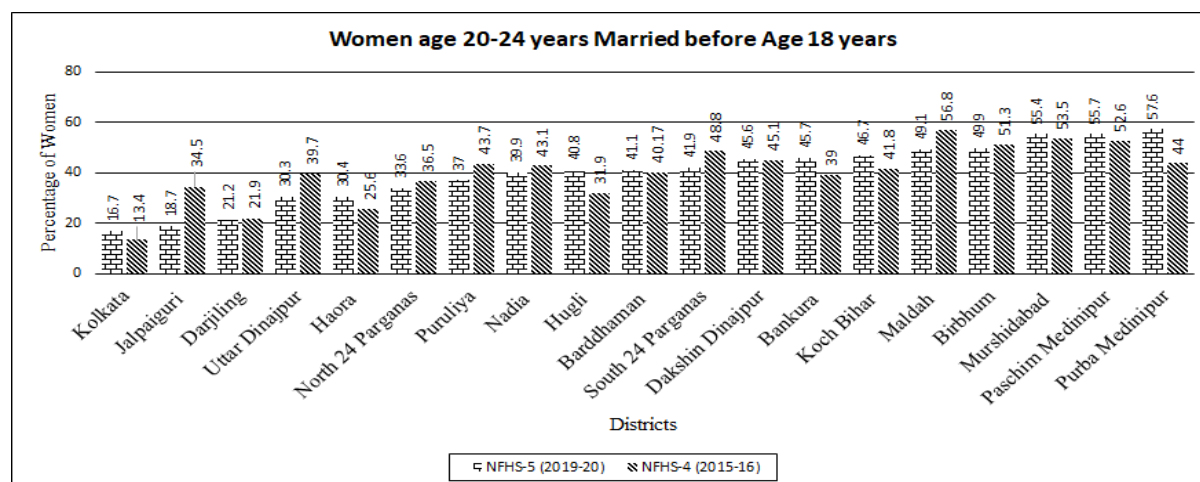
Source: Census of India, 2011, Figures are in percentage



It is important to note that across the district, child marriage varies both in terms of gender and space (table 4). Child marriage is higher among girls across all the districts of the state. In fact, it is 5 to 10 times higher among women compared to men. Child marriages among girls are the highest in rural areas of Murshidabad, North 24 Parganas, Birbhum, Koch Bihar, Maldah, Nadia, Bardhaman, South 24 Parganas, Paschim Medinipur and Purba Medinipur district. These are the districts where more than 70 percent of women in rural areas get married when they reach between 10 and 19 years of age. Child marriages among girls are the lowest in rural areas of Darjeeling district. Almost similar picture can be seen in urban areas. The lowest number of child marriages among girls in urban areas can be seen in Kolkata, followed by Darjeeling and North 24 Parganas. Apart from these three districts, child marriage among girls in other districts is more than fifty percent. The average number of child marriages among girls in rural and urban areas is 69.64 and 55.43 percent respectively.

From the above table 4, it is evident that child marriage among girls are more prevalent in West Bengal before the introduction of the *Kanyashree Prakalpa*, a conditional cash transfer program to curtail child marriage among underage girls. Now it's necessary to examine the impacts of the conditional cash transfer program through various indicators.

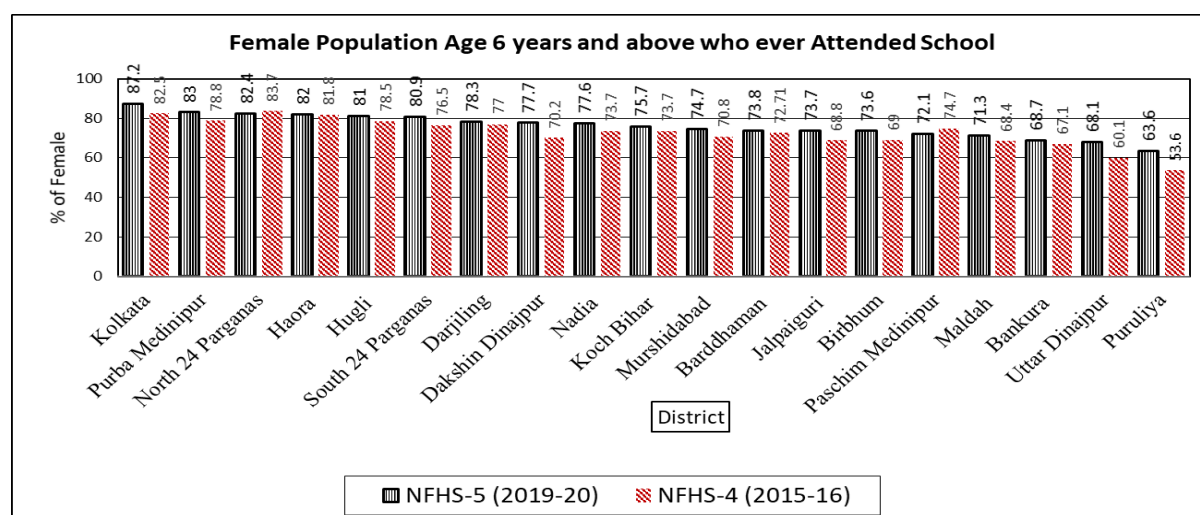
Figure 1: Women aged 20-24 years married before the age of 18 years



Source: NFHS, 2019-20

NFHS data clearly pointed out that the number of child marriages among girls has reduced in a few districts after the introduction of the program. However, there are some districts where child marriages did not decrease. In the case of Haora, Kolkata, Hugli, Bankura, Koch Bihar, Murshidabad, Purba and Paschim Medinipur, cases of child marriage among girls did not diminish, but rather increased as per NFHS data. Child marriages among girls have significantly decreased in Jalpaiguri, Maldah, and Uttar Dinajpur districts.

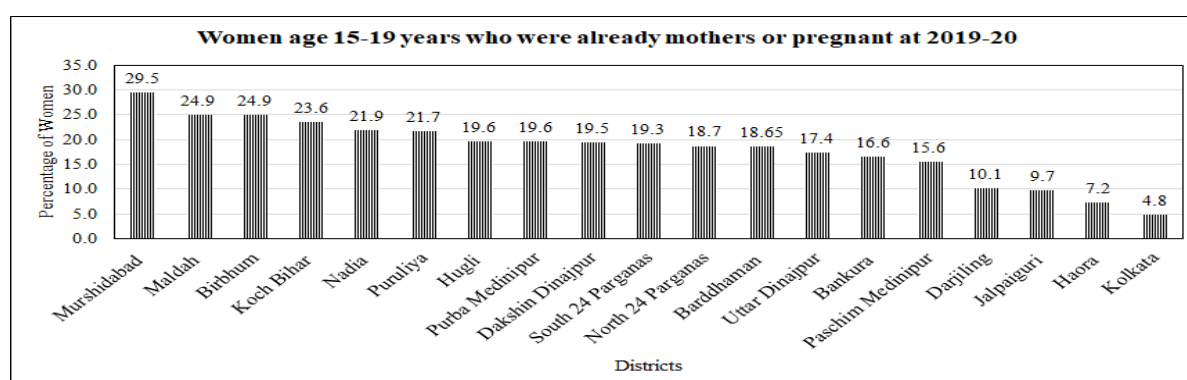
Figure 2: Female Population age 6 years and above who ever attended school



Source: NFHS, 2019-20

Attending school is another indicator of social development. It has been noticed that attendance in schools by females has increased in almost all the districts after the introduction of the program except in Paschim Medinipur. Another important question in the NFHS data was the number of women who were already mothers or pregnant at age 15-19 years in 2019-20. It has been found that in Murshidabad, Birhum, Maldah, Koch Bihar, Nadia, and Puruliya districts more than 20 percent of women under the age of 15 to 19 are either already mothers or pregnant.

Figure 3: Women aged 15-19 years who were already mothers or pregnant in 2019-20



Source: NFHS, 2019-20

The above figure 3 shows that less than 10 percent of women are either mothers or pregnant under the age of 15 to 19 years in three districts, namely Jalpaiguri, Haora, and Kolkata. This figure confirms that child marriage under the age of 15 to 19 still continues but is significantly reduced. It is worthwhile to note here that in early childhood, gender disparities start out small. However, the onset of adolescence can bring significant barriers to girls' well-being.

Gender norms and discrimination heighten their risk of child marriage, teenage pregnancy, high-risk childbirth and malnutrition. There is further scope to reduce the number of child marriages and teenage pregnancies. Therefore, conditional cash transfer alone is not enough to completely eliminate child marriage.

Figure 4: Correlation between Female Child Marriage and Sanctioned Scholarship 2019-20

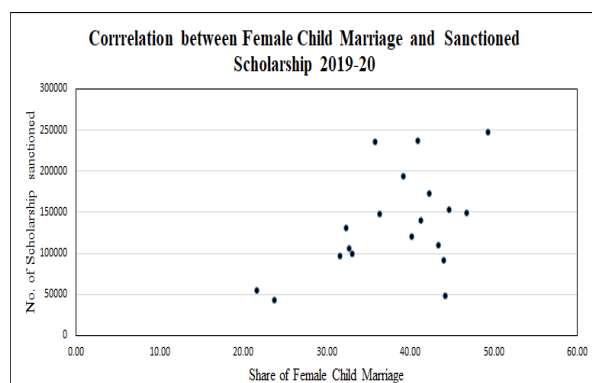
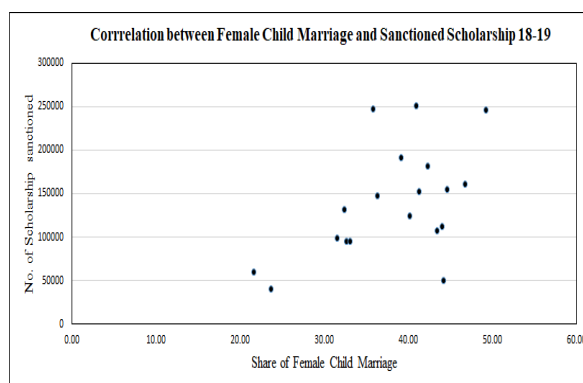


Figure 5: Correlation between Female Child Marriage and Sanctioned Scholarship 2018-19



Source: Dept. of Women and Child Health and Social Welfare, Govt. of West Bengal

An overview of the correlation (Figures 4 and 5) indicates that conditional cash transfers have happened more in those districts where child marriages are prevalent. But it is remarkable that in Kolkata, Kalimpong (Parts of Darjeeling district earlier), and Jhargram district (Parts of Paschim Medinipur earlier) the number of enrolled people for scholarships is more than the target number of scholarships in the district. On the other hand, the amount of enrollment for the scholarship is less than 90 percent of the total targeted number in districts like Paschim Medinipur, Purba Medinipur, South 24 Parganas, Uttar Dinajpur, and Purba Burdwan.

However, the number of enrolments for scholarships and the total targeted number across the district varies over the years. In fact, sanctioned scholarship numbers are always less than the enrolment number. Exclusion from the scheme is not always a function of supply-side barriers but also demand-side constraints. Pratiche Institute in 2017 reported that among Scheduled Tribes the rejection of this scheme is highest. It could be due to poverty, a preference for marital security over the chance of a job, or resistance to perceived state interference in their personal lives. Moreover, they also note that Muslim girls also reject the scheme, for the same reasons, and possibly also due to religious beliefs. Some urban girls and their families perceived the scheme as suitable not for themselves but for rural girls from poorer families (Pratiche Institute, 2017).

## Discussion

In mapping the causes of child marriage in West Bengal it is evident that the trends of child marriage in the state is still prevalent in all districts. Girls tend to get married at a younger age than boys on average. According to NFHS-4 data, twice as

many girls in the state were married before the age of 18 compared to boys who were married before the age of 21. The age disparity observed in child marriages is an indication of the patriarchal system, which is a significant underlying cause of this practice. In his paper titled "Early Marriage of Girls in Contemporary Bengal: A Field View" (2007), Ghosh (2011) examines the reasons behind child marriage beyond the commonly cited factors such as poverty and tradition. Ghosh analyzes economic decision-making patterns, such as families investing in land/property instead of their daughters' education, and draws upon the narratives of the affected children. The prevalence of child marriage in relatively affluent families and their prioritization of economic decisions suggest that poverty, while a significant factor, may also serve as a disguise for patriarchal attitudes. This is supported by the high level of awareness about the illegality of child marriage (Ghosh<sup>a</sup>, 2011). The criticism of child marriage highlights that such marriages impede a woman's ability to develop her skills to earn a livelihood, ultimately portraying her as a financial liability that must be supported by the groom's family and repaid through dowry. However, this critique presumes that the care work, domestic labor, and farm work she provides are not deserving of compensation.

In the past, child marriage was a customary practice among the upper castes, intended to secure same-caste marriages prior to individual choice becoming a factor. However, in modern-day Bengal, the persistence of this practice in other societal groups is due to deprivation within those communities. According to 2011 census data, marriages before the age of 14 are most prevalent among Muslims, followed by scheduled tribes and then scheduled castes. Additionally, marriages before the age of 18 are most common among scheduled tribes, followed by caste Hindus and then Muslims (Ghosh<sup>b</sup>, 2011, Sanlaap, 2007).

Some argue that the negative impacts of child marriage extend far beyond health concerns, but such harm is often overlooked. Even if the health consequences are recognized, there is a lack of societal acknowledgment. Most families are unaware that child marriage and the pressure to prove fertility are direct causes of maternal and infant mortality (Sagade, 2005). The significant prevalence of teenage pregnancies in West Bengal (18.3%) can lead to obstructed labor, hypertension, obstetric fistula, HIV, premature birth, and low birth weight due to incorrect feeding practices, among other complications (IIPS, 2020).

## Conclusion

The *Kanyashree Prakalpa* initiative has had a significant positive impact on reducing child marriage in West Bengal. Through financial incentives and educational programs, the initiative has empowered girls and their families, increasing awareness about the harms of child marriage and promoting girls' education. The result has been a marked decline in child marriage rates across the state. The success of *Kanyashree Prakalpa* serves as a model for other regions to follow in the fight against child marriage and the advancement of gender equality. While the

*Kanyashree Prakalpa* initiative has been successful in reducing child marriage rates in West Bengal, there are still challenges that need to be addressed. One such challenge is ensuring that the program reaches all girls in the state, particularly those in remote and marginalized areas. Additionally, there is a need to address the persistence of patriarchal attitudes and norms that perpetuate child marriage. The economic and social pressures that lead families to choose child marriage also need to be addressed. Finally, sustained efforts are needed to monitor and evaluate the impact of Kanyashree Prakalpa to ensure that it continues to be effective in reducing child marriage rates.

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## Policy Perspectives

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### Policy as a Discourse:

#### *An Exploration of Assisted Reproductive Technology Regulation in India*

Suparba Sil<sup>1</sup>

#### **Abstract**

*The paper will attempt to explore how policies in the context of Assisted Reproductive Technology (ART) act as means of anticipatory governance, controlling the mass population by restraining, excluding, and discriminating against them through ever-changing guidelines. The paper takes off from the premise that policies are never neutral, therefore necessitating the need to understand them within the socio-political, historical, and economic context, within which they have been formulated. In this context, the paper explores policies operating as a discourse, constituted by the state within the political economy of health interventions. The discourse of ART in India is understood in the context of this paper as being influenced by notions of ‘modernity’ and ‘development’, the history of innovation in ART around the world, while at the same time being impacted by age-old traditions which can be traced back to Hindu texts. The paper attempts to explore the dialectical relationship between tradition and modernity in the Indian ART industry, operating within the framework of ‘governmentality’, through essential debates that have emerged out of the changing ART policies over the decades.*

**Keywords:** Reproductive health, health policy, assisted reproductive technology, anticipatory governance, political economy

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#### **Introduction: Policy as a Discourse**

Policies in the context of this paper, have been understood as a discourse in itself operating through state-sanctioned acts and bills. Before delving into the critical analysis of ART policies in the last two decades, it however becomes essential to

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<sup>1</sup> Suparba Sil is a doctoral candidate at the Centre of Social Medicine and Community Health, School of Social Sciences, Jawaharlal Nehru University.  
Email: suparb81\_ssh@jnu.ac.in

conceptualize policies as operating within the discourse of the state. The state, following Foucault's notion of governmentality, operates through the production and sustenance of discourses. The state manifests its power through modes of anticipatory governance, which include policies and other such regulations. The consistent production of the discourse ensures that the subjects are produced within the discourse (Foucault, 1991). Such tactics ascertain the legitimacy of power, as the subject (whose consent has been manufactured) starts perceiving the mechanisms of the discourse as normative.

Grindle (1980) elaborates on how the implementation of policies in Third World countries (like India) is marked by scarcity of resources, political participation, limited accessibility, and extreme competition. Demands or suggestions are representative of the interests of social groups which are usually made at the output stage. It is difficult for demands to be put forward in the formulation stage because of the lack of sturdy aggregate structures in third-world countries. Additionally, there are problems of dispersed political membership, lack of leadership, and ineffective interest groups that are unable to make a case for their demands. Despite the need for responsive policies, the state usually employs elite planning bodies with the task of formulating the policies, thus protecting them from pressure from interest groups and open debates and critiques at the stage of formulation (Grindle, 1980). This is often done to manifest the governmentalization of the state through a centrality of authority. The neutrality and need for responsiveness of interventions are thus sacrificed in the face of centralization of the state's authority.

Foucault (1991) notes how the example of the Machiavellian Prince elaborates on notions of centralization of power and governmentality. "The prince stood in a relation of singularity, and externality, and thus of transcendence to his principality". The objective of the exercise of power by the prince was to reinforce, strengthen, and protect his principality. Following Foucault (1991), the essential element in establishing the art of governing is the introduction of the economy into political practice. Governing a state signifies the ability to set up an economy at the level of the entire state, and exercising the same towards its inhabitants. The manner in which the state controlled the disbursement of resources for intervention programs points to the establishment of a centralized structure of power, unresponsive to the needs of the inhabitants. The interventions are formulated at the central level, keeping sovereignty as the ultimate goal. Following Foucault (1991), sovereignty entails the common welfare of the citizens and their salvation. This requires all subjects to obey the laws and practice the assigned trade (as designated through structural arrangements). Such a state however requires the absolute obedience of the subjects. So, then, what characterizes sovereignty, is the end of sovereignty.

In the context of ART, the policy regulations that form part of the state's discourse govern, foster, and constrain the adoption, and dissemination of ART in a particular society. The history of ART in India can be understood within the above

theoretical framework, wherein policies and laws implemented have often marginalized segments of the population in order to benefit those governing. However, before delving into the historical trajectory of ART in India, it becomes essential to trace the evolution of Assisted Reproductive Technology, to be able to understand the apprehension behind technological innovations that have necessitated various modes of anticipatory governance, to protect and maintain the principality of the state.

### **Innovations in Assisted Reproductive Technology: A Historical Trajectory**

The history of innovations in the field of reproductive technology takes us back to the fictional roots of Frankenstein's monster that made its way into Europe's popular discourse in the early 1900s. With the census of 1911 including the birth component and the debate on birth control technologies in 1923, fertility and technological solutions to the same became very much a part of the conversation around the turn of the 20<sup>th</sup> Century (Conley, 2018). The end of the Second World War further ushered in new debates on fertility, led by Daniel Petrucci who fertilized a human egg in a test tube in 1968, and innovations of Patrick Steptoe and the Rabbit in 1970. The reactions of the Vatican to these instances also further highlighted these innovations in reproductive health.

A significant turn of events took place after the first success of IVF as a procedure in 1969, and by the time of the birth of the first IVF baby Louis Brown, the perspective towards reproductive technologies had undergone a significant transformation (Conley, 2018). The ongoing conversations about the implications of these technologies on society however necessitated anticipatory governance in the forms of organizational bodies and policy regulations. Conley (2018) highlights the importance of anticipatory governance wherein societies envisage the implications of new and emerging technologies, much before they come into existence. Anticipatory governance operates through organizational bodies that initiate socio-technical contracts through which societies envision and thereafter organize the construction, initiation, or application of new technologies (Conley, 2018). Bodies such as the Human Fertilization and Embryology Authority (1991) were one such instance of anticipatory governance that assumed imaginative capacities for anticipatory governance of scientific inventions in the area of assisted reproductive technology, in Europe. Within the conceptual framework of anticipatory governance, the significance of regulatory constructs such as policies attain the required clarity.

### **Assisted Reproductive Technology in India**

Assisted Reproductive Technology (ART), consists of a gamut of practices ranging from cryopreservation of eggs to removal of gametes for IVF and surrogacy procedures. The birth of the first scientifically documented test-tube baby, Harsha, ushered in a new era of assisted conception in India in 1986 (Bharadwaj: 2016). Since then, the ART industry in India has seen a boom with the introduction of Invitro



Maturation (IVM) in 2003, while the first successful pregnancy through frozen oocytes took place in 2009 (TOI: 2003). In the years after globalization and liberalization, India has witnessed an exponential growth of ART clinics and hospitals offering a wide variety of services such as egg donor treatment, donor embryo treatment, etc. With an estimated number of 800 clinics, India occupies an important position in the world's ART map (Malik, 2016). The period from 2007 to 2009 has seen an increase in the number of artificially prepared cycles, using hormones, for frozen thawed embryo transfers. The numbers for the corresponding years after 2009 have increased from 1525 to 2678 (Malhotra et al., 2013).

### **Healthcare Policies in India and the Adoption of Assisted Reproductive Technology**

The adoption, dissemination, and domestication of Assisted Reproductive Technology in India can be traced back to the predominance of Western medicine, a consequence of colonial rule in India. The hegemony of Western medicine however truly occurred during the post-independence decades, under the Nehruvian regime. The hegemony of Western medicine in India (that has facilitated the market for ART in India) therefore needs to be explored within the larger historical, social and political context. The cultural authority and hegemony of bio-medicine were introduced by the colonial state and later found manifestation within the Nehruvian discourse of science and development.

An examination of nationalist perceptions, policies, and programs in healthcare in the post-independence decades points to the fact that they were not very different from those of the colonial state (Khan, 2006). The conformity to the Western systems of medicine, through its application to Indian healthcare services, was in itself a step towards modernization. Following Khan (2006), the zeal for conformity to the Western system of narrative was so emphatic that it subsumed any resistance by indigenous systems of medicine for the existence of a plurality of medical systems. The Nehruvian government framework of 'science' and 'progress' therefore went beyond the entrenchment of the Western system of medicine as superior, subordinating Indian systems of medicine such as Unani, Ayurveda, etc. By the 1950s, the support for the Western systems of medicine became part of the Nationalist agenda.

Soon after, discussions about the idea of a uniform health policy across the country, based on scientific methods were deliberated upon. The two decades after independence witnessed the development of Five-year plans, in order to evaluate the health schemes and policies implemented during the years that followed Independence. Based on the recommendations of the Bhore Committee, the healthcare policies in the post-independence period assumed the holistic responsibility of curative and preventive measures as a step towards safeguarding the health of the nation.

The immediate years after Independence also saw the formation of five-year plans that focused on vertical control programs (Bajpai et al., 2013) and the establishment of a three-tier rural health infrastructure, which led to the development of the first primary health center (PHC) in 1952, as well as the initiation of departments of preventive and social medicines in medical colleges as an attempt to introduce a social, cultural and economic context to the practice of medicine (Banerji, 1985). In the next four decades, the five-year plans went through several transformations in terms of goals and approach, ushering in the Minimum needs program in the 1970s, which aimed to achieve more efficient service delivery.

However, the ideological transformation that led to the growth of the private healthcare sector, of which assisted reproductive technology is a part, was brought about after the Health Policy of 1983, which was structured after the Alma Ata Declaration of 1980. The 1990s witnessed the formulation and implementation of structural adjustment policies that led to the initiation of Health Sector Reforms (HSR) in India. The health sector reforms, funded by the IMF- World Bank called for reductions in health sector investments and fostered the growth of a private market for health services premised on user fees, private investments in public sector hospitals, and techno-centric public health interventions (Bajpai, 2013). The millennium decade furthered the growth of the private sector in healthcare through the National Health Policy of 2002, which encouraged a free market economy as opposed to socialist policies, in the health sector.

Thus, the healthcare sector in the years leading to the millennial decades reflected the policies of liberalization, fostering a transnational flow of technology, that permanently changed the character of Indian Healthcare. Liberalization led to a dissolution of national boundaries that gave rise to global markets for labor, manufacturing, service, etc. Following Bisht et al. (2012), liberalization paved the way for foreign investors, who were attracted by the large English-speaking workforce and the low costs. The healthcare sector in India expanded significantly as a direct consequence of liberalization and by the turn of the 20th century, India had become a growing Asian market for medical tourism, e32healthcare insurance, telemedicine, medical equipment market, and pharmaceuticals among others.

Liberalization in the 1980s, which paved the way for private investors also marked the beginning of an expanding private sector. The 1990s India was characterized by collaborations between Indian companies and multinational corporations such as Gleneagles and Royaltan Medical Management, that facilitated the transnational flow of medical technologies.

Following Chakravarthi, Bisht et al (2012) point to the role of the International Finance Corporation in promoting an increasing role of the private sector in Indian healthcare. Such global partnerships that resonated with the new global India, created a niche market for medical technologies starting from stem cell to gamete donation and surrogacy. The transnational flow of technology, fostered by the process of liberalization and globalization has thus ensured the availability of

advanced technologies, which the Indian healthcare market did not previously have access to.

The transnational flow of medical technology facilitated by private partnerships has led to the creation of demand for the same technologies, creating a market for these technologies. The introduction and dissemination of ART technologies need to be understood within the context of policies formulated during the decades of liberalization and globalization that fostered the growth of the 'cosmetic' use of technology, leading to the proliferation of a consumerist type of science.

### **Policy Transformations and Emerging Debates in Assisted Reproductive Technology Industry in India**

The post-millennial decades have witnessed many transformations in the regulation and governance of assisted reproductive technology in India. However, one thing has remained common with regard to the functioning of ART in India. The fact that ART as a private healthcare sector endeavour, should be operating with the notion of benefiting only those who can afford to opt for it. The regulations operating to govern ART have somewhat reflected the same notion. Post implementation of the National Health Policy of 2009, that have actively promoted medical tourism, legalizing Public Private Partnerships through state subsidies, bodies have emerged as commodities for the exchange of economic capital. Biotechnology has become the means and the site for the fragmentation of bodies into individual parts, to be exchanged for remuneration, making resources out of them (Marwah, et al., 2011). National guidelines for the Accreditation, Supervision, and Regulation of ART clinics in India were published by ICMR and the National Academy of Medical Sciences in 2005 in an attempt to maintain a national registry of ART clinics in India.

However, because of the implementation gap as well as the lack of legal binding, ART clinics have largely been running according to the whims, perceptions, compulsions, and incentives of individual providers. In addition, clinics have exploited the lack of legality, indulging in practices such as sex selection, multiple embryo implantation, etc. Clinics have also been known to divulge scanty information to the patients about their treatment, often not even offering counseling services to the commissioning couples, as mandated by the policy. In a nutshell, the 2010 draft of the ART bill has fostered the growth of the ART business, leaving ethical questions unattended. The 2014 bill attempted to bring about regulations with regard to reproductive rights but failed to bring about uniformity in the functioning of ART clinics. The 2017 bill again attempted to regulate the functioning of ART clinics, by stipulating that no ART clinic or bank shall practice, or use premises without registration under the National Registry of Assisted Reproductive Technology (GOI: 2017).

However, in spite of so many protocols over the years, ART clinics have been allowed to function without restrictions and standardized protocols. Jamwal (2022) notes that the ART Act of 2021, preceded by the ART Bill of 2020, has specifically

stipulated the registration of ART clinics under the national registry as a necessity. The purpose is not only the regulation of ART clinics but the generation of big data, which will guide research and policy, in the years to come.

Grindle (1980) notes how the administration of a particular program is dependent on actors who control the process of resource allocation. Needless to say, state control over resource disbursement was supported by the upper classes of rich entrepreneurs, rich farmers, managerial and bureaucratic personnel, and the organized sections of the working class. Thus, what we have at hand is the consistent distribution of benefits by the state to individuals and small groups, ironically within the garb of a mixed economy approach. The discourse of the state with regard to ART has been capitalist, allowing the clinics free reign, without standardized protocol and uniform rates, for the unfettered growth of the ART industry in India. Even though the 2021 act stipulates strict guidelines for clinic registrations under the National Registry, the level of implementation remains yet to be seen.

### **Reproductive Rights and Policy Implication in ART**

Reproductive rights in the context of ART have been a contested issue, over the years. As per the 2010 draft of the ART bill, a woman was allowed to donate her oocytes up to six times in her lifetime, with three months of intervals in between. However, there was no system to record and ensure that a clinic was not allowing a donor to donate oocytes after the sixth time. Additionally, given every cycle might not lead to successful oocyte donation, the number of cycles that a woman should be allowed to go through was also not specified by the 2010 bill. This meant serious health risks for women at the procedural level, given the protocols set out by the 2010 bill (Jamwal, 2022).

The 2010 ART bill was revised to formulate the 2014 bill. Following from Kusum (2016), the 2014 bill was found to be significantly lacking when it came to the issue of reproductive rights. The 2014 bill took away the reproductive right of the surrogate mother to opt for abortion, vesting legal rights of abortion with the commissioning mother. Kusum (2016) notes that in a series of landmark cases namely, *Suchitra Srivastava v. Chandigarh Administration* or *Bhupinder Kumar v. Angrej Singh*, The Supreme Court has upheld the right of the woman to seek abortion, which falls under the dimension of ‘privacy’ and ‘personal liberty’ under the article 21 of the Constitution.

The provision of the ART Bill 2014 therefore, is not only arbitrary but also is in direct opposition to the laws of personal liberty and privacy (Kusum, 2016). While revisions have been made with regard to other rights of surrogates, such as age limit, marital status, etc, the right of abortion of the surrogate still rests with the commissioning couple, bringing the exploitation debate to the forefront. While it is true that surrogates are being paid for renting their wombs, it becomes essential to locate the health risks of women within the legal provisions of abortion. The discourse of the state, in this regard again is an attempt to serve the client- the commissioning couple, who in this regard is the driver of economic growth.

## **Sexuality and the Re-assertion of the Heteronormative Family**

Another issue that deserves significant attention, is that even though ART in so many ways separates biology from reproduction, the 2010 draft ART bill was ambiguous about access to ART by gay couples (Marwah et al., 2011). Following from Kusum (2016), the ART bill of 2014 was even more discriminatory, because it placed limitations on single individuals and same-sex couples from opting for surrogacy. Kusum (2016) notes that in the judgment *B.K Parthsarathi v. Government of Andra Pradesh*, the right of reproductive autonomy or procreative choice or decision-making was categorized under the ‘right to privacy’, thereby making this provision of the Bill arbitrary, and discriminatory. The provision of the 2014 Bill therefore not only disrupts the reproductive right to privacy guaranteed by the constitution but also negates the landmark judgment of the Supreme Court, which de-criminalized gay sex in 2009. Even though the state introduced a separate bill for regulating surrogacy in 2017, the provisions of disallowing single parents and homosexuals from accessing surrogacy have not changed in the recent Act passed in 2021 (GOI: 2021).

The discourse of the state in this regard can be understood to be a reassertion of heteronormative notions of a family, which can be traced back to the ancient Hindu scriptures. The cultural conceptions of fertility can be traced back to the gendered ideas rooted in the ancient Hindu Vedic texts. Much of the Vedic period was organized along the ideological premise that the woman provides the field or the ‘kshetra’ and the man provides the ‘seed’ (Bharadwaj, 2016). Further, according to the cosmic division of labor, the task of sowing the seed belongs to the husband and the task of nourishing the seed belongs to the wife. Bharadwaj (2016) notes that while the task of the woman is to contribute blood for the maintenance of the fetus, the seed contained in the semen is said to have a relationship with blood. The social identity of the child is thus marked by the father’s blood (Bharadwaj, 2016).

## **Exploitation vs Livelihood**

Two debates have to be considered in order to understand this debate, the first one being banning commercial surrogacy for foreign nationals. Medical tourism in India has been a major driver of economic growth, the significant aspect of it coming from the demand for Assisted Reproductive Technology. Foreign nationals were allowed to access ART facilities in India, including surrogacy from 2005 to 2014. From the year 2014, foreign nationals have been prohibited from accessing surrogacy in India, following legal debates such as that of *baby Manji Yamada v. Union of India* and others, and exploitation of children, etc (Narayan et al., 2023). On the face of it, it seems like a welfarist stance on the part of the Indian state, done for the protection of children. But by banning foreign nationals from accessing surrogacy, the state has also taken away a major source of employment for Indian nationals, whose livelihood depended on this.

The other significant debates which mark a departure from the previous debates is the ban on commercial surrogacy in India. Commercial surrogacy was allowed in India for the longest time till the recent Surrogacy Act of 2021 banned it on the

grounds of it being exploitative labor towards women (Narayan et al., 2023). However, the ban on commercial surrogacy has been a matter of intense debate. Passive resistances have resulted in a shadow market for surrogacy, and illicit underhand dealings, where surrogate women are exploited to a greater extent than before. Furthermore, the ban on commercial surrogacy is a direct violation of Article 19(1), putting a restriction on the bodily autonomy of consenting adult individuals to earn their livelihood (Narayan et al., 2023).

Thus, while on one hand, the state's recent measures to regulate surrogacy might come across as altruistic and welfarist, it could also be perceived as a distribution of benefits by the state to individuals and small groups belonging to the upper echelons of society, for whom such measures will not lead to a shortage of livelihood opportunities.

### **Conclusion: The Myth of the Altruistic State**

The above-mentioned debates with regard to ART point to the fact that measures of intervention programs have not been formulated keeping all sections of the population into account. The discourse of policies around ART bear semblance to the age-old heteronormative structures of family, negating modernity while standing on the very foundation of it. Assisted reproductive technology, standing firm on scientific innovations brought about by modernity, has been somehow subverted in the Indian context to superimpose tradition as the normalized discourse. The interventions have prioritized agendas suited to the state's needs at given points being entirely unresponsive to the needs of the inhabitants.

Chatterjee (2004) while discussing the nature of sovereignty in mass democracies around the world, makes a distinction between citizens and populations. Chatterjee (2004) notes that while citizens inhabit the domain of theory, populations inhabit the domain of policy. As opposed to the concept of citizen that carries with it the ethical connotation of participation in the sovereignty of the state, the concept of population is synonymous with a set of rationally manipulable instruments in order to reach out to large sections of the population that are the target for policies. Chatterjee (2004) quotes Foucault to elaborate on the character of contemporary regimes that operate through the governmentalization of the state. Such a regime secures legitimacy not by the participation of the citizens but by the claims of providing for the well-being of the population.

Chatterjee (2004) theorizes the concept of citizens within the category of civil society, while the population is categorized as 'political society'. For Chatterjee (2004), civil society is the bourgeois society, the upper echelons of society who are part of the existing institutions, and whose social locations can be identified. Political society on the other hand consists of individuals whose social locations are temporary and shifting, those who are the beneficiaries of the policies. Chatterjee (2004) argues that the number of benefits received by members of the political society is almost always dependent on the calculations of political expediency.

As Grindle (1980) notes, even though there is an existence of pressure groups that may often influence policies, it is always at the stage of output that the demands can put forward. Therefore, the civil society in the context of ART has retained the entire power at the formulation stage, where objectives at each stage have been made in mind interests of political expediency, and governmentalization of population and economic progress.

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## Policy Perspectives

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### The Need and Implications of a Tobacco Awareness Programme:

*Under the directives of the COTPA (Cigarette and Other Tobacco Product Act) of 2003 and the Tobacco Free Youth Campaign of 2023.*

Apoorv Agrawal<sup>1</sup>

#### Abstract

*Tobacco consumption is one of the leading causes of preventable diseases and deaths across the world with 5.4 million deaths reported every year, 80% of which occur in third-world countries like India. The consumption of tobacco brings not only health issues but also monetary and economic as well. In this paper we discuss, the various ways as suggested by the National Tobacco Control Program (NTCP) and the Directorate General of Health Services to understand the harms of tobacco consumption, the steps to raise awareness against the use; and strategies for the enforcement of Cigarettes and Other Tobacco Product Act's (COTPA) sections.*

**Keywords:** GATS (Global Adult Tobacco Survey) NTCP (National Tobacco Control Program), FCTC (Framework Convention on Tobacco Control), SLT (Smokeless Tobacco), ToFEI (Tobacco Free Education Institutions)

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#### Background

India is the second largest producer and consumer of tobacco in the world after China, with an estimated one-third of the adults (aged 15 and above) in the country consuming tobacco through some form or the other according to the *Global Adult Tobacco Survey (GATS)* conducted in 2010.

Breaking this survey further down gives us a better insight into how extensive the issue is not just among adults but also the youth in the country. According to GATS\*, tobacco consumption in India among adults in urban areas was 21.2%, in rural areas was 32.5% and overall was 28.9%. According to the *Global Youth Tobacco Survey* of 2019, 8.5% of the youth consumed tobacco in some form. What is even more

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<sup>1</sup> Bihar Institute of Economic Studies, & Mayo College, Ajmer  
Email: Apoorvag2414@gmail.com



troubling is the statistic that indicates the large number of children who are exposed to secondhand smoke - 21.9% at home and 36.6% in public places.

This high percentage of use or exposure to tobacco raises alarming public health concerns. Tobacco consumption is one of the leading causes of preventable diseases and deaths across the world with 5.4 million deaths reported every year, 80% of which occur in third-world countries like India.

The consumption of tobacco brings not just health issues but monetary and economic as well. In 2019, tobacco-related health treatment for people above the age of 35 in India cost 27.5 billion USD in 2019.

To curb the use of tobacco and protect nonsmokers from tobacco use, the COTPA or Cigarettes and Other Tobacco Products (Prohibition of Advertisement, Regulation of Trade, Commerce, Production, Supply, and Distribution) Act of 2003 was introduced by the Government of India.

In this paper we discuss, the various ways as suggested by the National Tobacco Control Program (NTCP) and the Directorate General of Health Services to understand the harms of tobacco consumption, the steps to raise awareness against the use; and the strategies for enforcement of COTPA's sections.

### Harms of Tobacco Consumption

According to WHO, India reports around 1.35 million deaths every year due to tobacco (smoking, smokeless tobacco products, and SHS) causing diseases like Cancer, Coronary artery disease, Chronic obstructive lung disease, Tuberculosis, stroke, cataracts, peripheral vascular diseases, and disorders like impotence among men and use by pregnant women leads to low birth weight babies, stillbirths and birth defects.

The use of tobacco raises the risks of cancer by such magnitude that of all cancers reported in India, 33.3% (48.7% in men and 16.5% in women) were associated with tobacco. Consumption of tobacco in any form exposes the human body to a plethora (in the number of thousands) of toxic chemicals, many of which are **carcinogenic**. For a better look at the harms caused by tobacco consumption, we refer to the below table:

*Table 1 Table: Damages caused by various components of Cigarettes and their use<sup>13</sup> (Pradhan, 2020)*

S. No	Content	Description	Organs damaged
1	<u>Nicotine</u>	Drug is more addictive than cocaine and heroin, increase heart rate, raise blood pressure, and constrict small blood vessels.  1000 times more potent than alcohol.	Nervous system, Heart

2	<u>Tar</u>	The sticky black residue left after the burning process contains hundreds of carcinogenic*/toxic chemicals. It's the main cause of lung and throat cancer and leaves strains on smoker's teeth, fingers, and lung tissue.	Teeth, Skin, Lungs, Throat
3	<u>Benzopyrene</u>	Formed after the incomplete burning of fuels, found in cigarette smoke and is one of the most potent cancer-causing chemicals. Also found in car exhaust and smoke from oil and gas products.	Lungs, Bladder, Colon
4	<u>Carbon Monoxide</u>	Produced as a result of the burning of tobacco and reduces the ability of red blood cells to deliver oxygen to tissues causing damage to the heart, brain, and skeletal muscles.	Heart, brain, Skeletal muscles
5	<u>Formaldehyde</u>	Is an embalming fluid that is used to preserve dead bodies. Is carcinogenic and damages the lungs, skin, and digestive system.	Lungs, Skin, Digestive System
6	<u>Benzene</u>	Used to make pesticides, detergent, and gasoline. Classified as a group 1 carcinogenic.	
7	<u>Hydrogen Cyanide</u>	One of the most toxic agents of the smoke released and was used in the Nazi Gas chambers during WWII. It damages the hair-like structures of the bronchial tubes whose function is to clean the lungs, as a result, the toxic substances build up in the lungs.	Lungs
8	<u>Arsenic</u>	A deadly poison used in pesticides (kills pests)	
9	<u>Cadmium</u>	A heavy metal found in car batteries causes damage to the liver, kidneys, and brain and stays in the body for years.	Liver, Kidneys, Brain
10	<u>Ammonia</u>	Chemicals used in cleaning products such as glass and toilet bowl cleaners. Claimed by the tobacco industry that it is used to add flavour but as found by scientists, it helps the body absorb more nicotine, thereby aiding the addiction process.	

11	<u>Turpentine</u>	Common paint stripper which is very toxic	
12	<u>Methoprene</u>	Found in tobacco smoke and is used to kill fleas on pests	
13	<u>Acetone</u>	Commonly used in nail polish removers.	
14	<u>Lead</u>	Stunts growth and causes vomiting	Brain
15	<u>Propylene Glycol</u>	An ingredient in antifreeze. Claimed by the tobacco industry that it is used to prevent tobacco from drying out but as found by scientists, it aids the delivery of nicotine to the brain.	

### Steps taken by the government

Since the passing of the COPTA, the government of India has taken significant steps to curb the growing demand for tobacco and strengthen tobacco control efforts. The government ratified WHO's Framework Convention on Tobacco Control in 2004 which asks to regulate tobacco demand through taxation and other methods, ultimately reducing the demand and supply of tobacco in the country; and initiated the National Tobacco Control Program in 2007 to "raise awareness about the harmful effects of tobacco, reduce the production and supply of tobacco products, ensure effective implementation of the provisions under COTPA 2003, help the people quit tobacco use, and facilitate implementation of strategies for prevention and control of tobacco advocated by WHO Framework Convention of Tobacco Control ."

### COTPA - 2003

One could argue that the implementation of COTPA has been one of the biggest steps taken by the government in the fight against tobacco. Its 33 sections meticulously specify the manner in which cigarettes and tobacco are to be regulated and prohibited along with the punishments for committing the offences labelled and explicated in the Act. Listed below are the important sections of the Act which explain the government's efforts against Tobacco consumption.

*Table 2 Dissecting Sections of COTPA -2003 (COTPA 2003 and Rules made thereunder: National Health Mission)*

Section	Description
<u>Section 1-3</u>	Title, Authority, Extent, and Definitions
<u>Section 4</u>	Prohibition of smoking in public places

<u>Section 5</u>	Prohibition of advertisement, promotion, and sponsorships of cigarettes and other tobacco products
<u>Section 6</u>	Prohibition on the sale of cigarette or other tobacco products to persons below the age of eighteen years and in and around (within a radius of 100 yards) of any educational institution
<u>Section 7</u>	Requirement of text and pictorial warning as is prescribed on all forms of tobacco product packages
<u>Section 8</u>	The manner in which specified warning shall be made, such that it is legible and prominent
<u>Section 9</u>	Language in which the specified warning shall be expressed (English and/or Hindi)
<u>Section 10</u>	Size of letters and figures of the warning
<u>Section 11</u>	Testing laboratories recognized by the Central Government to test nicotine and tar contents
<u>Section 12</u>	Power/Authority of entry and search given to any officer not below the rank of sub-inspector or any officer of State Food or Drug Administration or any other officer, holding the equivalent rank
<u>Section 13</u>	Power to seize any packages of cigarettes or any other tobacco product or advertisement material shall they contravene any provisions of the act, for a period of 90 days from the date of the seizure
<u>Section 14</u>	Confiscation of packages of cigarettes or any other tobacco product or advertisement material shall they contravene any provisions of the act
<u>Section 15</u>	<p>Power of the court to give option to the owner to pay costs in lieu of confiscation which shall be equal to the value of goods post confiscation.</p> <p>Post-return of the seized packages, the owner must ensure that before making any distribution, sale or supply of such packages of cigarette or any other tobacco product they have the specified warning and indication of nicotine and tar contents incorporated.</p>
<u>Section 16</u>	Confiscation not to infer with other punishments

<u>Section 20 (1)</u>	<p>Punishment for any person who produces or manufactures cigarettes or tobacco products that fail to give specified warning and nicotine and tar contents:</p> <p><b>1st Conviction:</b> Imprisonment for a term which may extend to 2 years or with a fine which may extend to Rupees 5000 or with both</p> <p><b>2nd Conviction:</b> Imprisonment for a term which may extend to 5 years or with a fine which may extend to Rupees 10000 or with both</p>
<u>Section 20 (2)</u>	<p>Punishment for any person who <u>sells or distributes</u> cigarettes or tobacco products that fail to give specified warning and nicotine and tar contents:</p> <p><b>1st Conviction:</b> Imprisonment for a term which may extend to 1 year or with a fine which may extend to Rupees 1000 or with both</p> <p><b>2nd Conviction:</b> Imprisonment for a term which may extend to 2 years or with a fine which may extend to Rupees 3000 or with both</p>
<u>Section 21</u>	<p>Punishment for those contravening the provisions of section 4 (smoking in public places): Fine which may extend to Rupees 2000.</p>
<u>Section 22</u>	<p>Punishment for contravening the provisions of section 5 (advertisement of cigarettes and tobacco products):</p> <p><b>1st Conviction:</b> Imprisonment for a term which may extend to 2 years or with a fine which may extend to Rupees 1000 or with both</p> <p><b>2nd Conviction:</b> Imprisonment for a term which may extend to 5 years or with a fine which may extend to Rupees 5000 or with both</p>
<u>Section 23</u>	<p>Forfeiture of advertisement and advertisement material for contravention of section 5 to the government and disposal of them</p>
<u>Section 24</u>	<p>Any person who contravenes the provision of article 6 (sale of cigarette or other tobacco products to persons below the age of eighteen years) shall be guilty of the act and be punished with a fine which may extend to Rupees 200</p>
<u>Section 26</u>	<p>When an offence under this Act has been committed by a company. Every person who, at the time of the offence was committed, was in charge of, and was responsible to, the company for the conduct of the business of the company, as well as the company shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly</p>
<u>Section 27</u>	<p>Offences punishable under this act shall be bailable</p>

Sections 30 & 31	Power of the Central Government to add any tobacco products to the schedule and make new rules
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To further carry forward the efforts of COTPA, the center launched the NTCP. The program has been substantial in the efforts against tobacco consumption through its methods of training health and social workers, NGOs, school teachers, and enforcement officers; information, education, and communication (IEC) activities; school programs; monitoring of tobacco control laws; coordination with Panchayati Raj Institutions for village level activities and setting-up and strengthening of cessation facilities including the provision of pharmacological treatment facilities at the district level.

Moreover, steps like placing tobacco products in the highest tax bracket slab i.e., 28% as suggested by WHO's Framework Convention on Tobacco Control (FCTC), setting up National Tobacco Testing Laboratories (NTLLS), and banning Gutka and/or other smokeless tobacco (SLT) along with Electronic Nicotine Delivery Systems (ENDS) have been implemented to achieve the goal of curbing tobacco consumption in the Union.

### Rapid and Immediate Actions Possible

With tobacco consumption contributing to higher than-ever mortality and morbidity rates and more young adolescents getting addicted than ever before because of increased influence on social media, glamorization of Tobacco on OTT/Streaming Media, and increased Tobacco Industry Initiatives, the call for immediate actions at all levels is urgent.

Hence the NTCP has instructed the formation of the following organization overseeing and enforcing **COTPA** and discouraging the use of tobacco products at their respective levels.

1. National Tobacco Control Cell (NTCC)
2. State Tobacco Control Cell (STCC)
3. District Tobacco Control Cell (DTCC)

Several CSOs or Civil Society Organizations take forward this work at the block and grassroots levels, making sure all sections of society can be contacted and helped. Moreover, there is a requirement for multiple fields to work together as shown in the below partnership cycle.

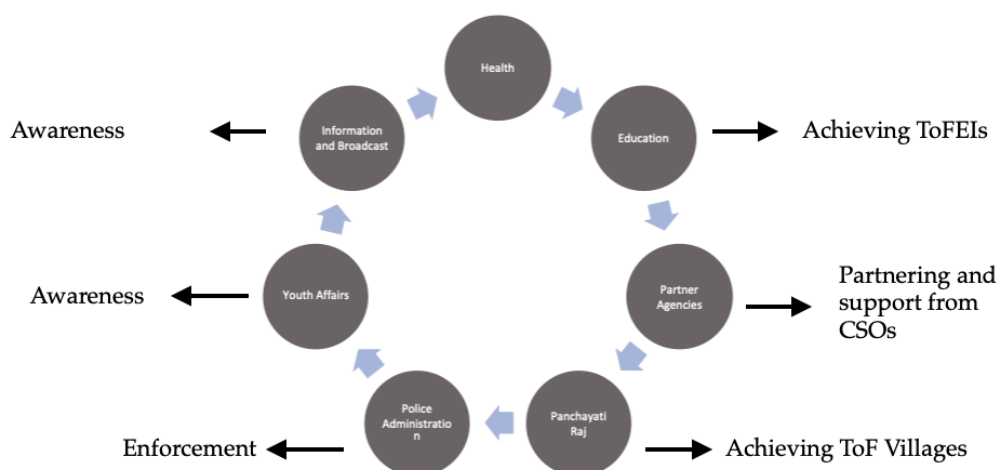


Figure 1: Partnership Cycle showing collaboration between various sectors

With the support and collaborative help of organizations from all these sectors, it is possible for us to draw up a strategic plan for a Tobacco Free Campaign which has the potential to have a serious impact on Tobacco consumption down to the grassroots levels.



Figure 2: 4 Level Strategies to achieve COTPA Objectives

### Strategy 1: Public Awareness

- The first course of action of the drive is centered around public awareness with a goal to bring to light the potent education relating to tobacco and its consumption which currently is barely existent among the general public.
- The most basic of laws under COTPA 2003, the legality and **prohibition** of certain products and harms of tobacco consumption are relatively unknown to most of the Indian population. Unbeknownst to these facts, they continue the consumption of tobacco products, infringing laws and damaging their bodies.
- This is aimed to be achieved through 1. Information, 2. Education and 3. Communication by the following mediums:

Table 3: Sources and Mediums of Generating Awareness

S. No	Information	Education	Communication
1	Wide print media coverage	Medical Colleges/educational institutions to host awareness sessions to highlight the harm of tobacco	TV
2	Wall Paintings	Engagement with Civil Society Organizations/NGOs	Radio Jingles
3	Hoardings		Street Plays
4	Public announcements		Nuked Natak
5	Social Media Campaign		NCC/NSS/NYK rallies
6	Awareness Through Celebrities		

**Strategy 2: (Tobacco-Free Education Institutions (ToFEI) Compliance**

- To ensure that malice like tobacco stays out of education institutions and away from children and adolescents, the NTCP mandated all education institutions to be Tobacco-free.
- With guidelines issued, every institution is required to abide by the guidelines and take adequate steps in order to declare itself as Tobacco Free Education Institution or ToFEI through the Self Evaluation Score Card and report to the DEO, District Education Office.
- The job of these institutions is not only to provide the students with an environment that is rid of Tobacco and its products but also to provide education highlighting the harms and dangers of tobacco consumption.
- To achieve and maintain the Tobacco Free status, institutions are required to conduct tobacco-free activities like essays, paintings, posters, quizzes, debates, take the “No Tobacco Pledge”, appoint a teacher or a student as the “Tobacco Monitor” who will check the consumption of tobacco among peers/other students, organize school rallies and the establishment of a Yellow Line or a Tobacco Free



Zone (prohibition of sale or consumption of tobacco) 100 yards around the education institution.

### ***Strategy 3: Enhance Enforcement of COPTA -2003***

- To prevent the infringement of the laws introduced by COPTA and to make sure the guidelines laid down by it are duly followed to have a positive impact on public health and minimize the percentage of people getting affected by secondhand smoke (SHS) in public places, steps are required to better enforce COTPA.
- These steps include placing statutory signage in the ordinance with sections 4 and 6 of COTPA.
- Intensified COTPA enforcement drives in hotspots and on-the-spot action at shops selling tobacco within 100 yards of educational institutions and those selling to minors.
- Heavy chalaans/fines for smoking in public spaces and removal of tobacco advertisements from point of sale (PoS), seizure of product packages without warning.

### ***Strategy 4: Tobacco-Free (ToF) Villages***

- It is of utmost importance the message of tobacco awareness reaches every corner of the nation. What makes it even more important for the message to be heard and taken forward in villages and rural areas is the statistic that the majority of the tobacco users in India are based in rural areas, where the use of *SLTs* like *Gutkha*, *Khaini*, *Zarda*, and other forms like *Bidi* and *Hukka* are prevalent.
- For the issue to be properly and effectively dealt with in villages, it is required we conduct and convene special Gram Sabha sessions with the presence of the stakeholders which include - Gram Panchayat members, NGOs, SHGs, youth, and the farms.
- To generate awareness there, public announcements, wall writings, and murals, *Nukkad Nataks* (street plays), and *Baithaks* are essential in such communities.
- The Gram Sabha has to then organize and conduct “Tobacco Free Village” Declarations, to celebrate the work and initiatives of the village and further incentives and inspire other villages to follow.

- Even after the declaration of the “Tobacco Free Village” status, it is the duty of the Gram Sabha/Village council to monitor tobacco control activities and ensure the sustenance of tobacco-free status.

## Conclusion

In conclusion, the research underscores the critical need for a comprehensive Tobacco Awareness Programme in India, driven by the imperatives of the Cigarette and Other Tobacco Product Act (COTPA) of 2003 and the Tobacco Free Youth Campaign of 2023. Tobacco consumption poses a significant public health challenge in India, with alarming rates of usage, particularly among youth, and associated health, economic, and social consequences. The harms of tobacco consumption are multifaceted, ranging from debilitating health conditions to economic burdens on the healthcare system. The research sheds light on the various toxic substances present in tobacco and emphasizes the need for immediate and concerted efforts to address this public health crisis. The government has taken noteworthy steps, including the initiation of the National Tobacco Control Program (NTCP) and the enforcement of COTPA, to curb tobacco consumption. The study delves into the critical sections of COTPA that regulate and prohibit tobacco products, emphasizing the legal framework in place to combat this issue.

The strategies proposed in the research, such as Public Awareness campaigns, Tobacco-Free Education Institutions compliance, enhanced enforcement of COTPA, and the concept of Tobacco-Free Villages, provide a roadmap for a comprehensive and effective Tobacco Awareness Programme. These strategies underscore the importance of educating the public, especially in rural areas, and ensuring strict enforcement of existing laws. The collaborative efforts of various organizations, including the National Tobacco Control Cell, State Tobacco Control Cell, District Tobacco Control Cell, and Civil Society Organizations, are essential components of a successful awareness and enforcement campaign.

The proposed partnership cycle demonstrates the need for a multi-faceted approach involving government bodies, NGOs, educational institutions, and communities. The research culminates in a call for immediate action at all levels to address the rising trends in tobacco consumption, especially among adolescents influenced by social media and industry initiatives. The proposed Tobacco-Free Campaign, backed by the concerted efforts of multiple stakeholders, has the potential to significantly impact tobacco consumption, ultimately contributing to improved public health outcomes.

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**#CityReflections  
Singularities of Municipal Finance**

*Sameer Unhale, IMPRI Books<sup>1</sup>*

Purnima Chauhan<sup>2</sup>

The devolution of 3Fs -funds, functions, and functionaries - was an essential bedrock of the 73<sup>rd</sup> and 74<sup>th</sup> Constitutional amendments of 1994. It envisioned empowering the third tier of Indian governance architecture sufficiently to enable streamlined local access to public services for citizens along with robust accountability for a responsive local government. Isher Ahluwalia's 2011 HPEC report on urbanization underscored the need to sharpen focus on not just financing but fostering financial self-sustainability among this third tier of urban governments enabling them to cater efficiently to meet the needs of an increasingly aspirational society. This sentiment was reinforced by another such report in 2019.

In 2015 the UN SDG 11 linked the growth of sustainable cities and communities as having a significant impact on related SDGs like water security and carbon reduction. Cities were to spearhead a 'vocal for local' movement as engines of growth. Forging outcome-based frameworks, policies, and programs to efficiently harness this latent potential of City assets and resources needed robust data-driven, reformist interventions that could even harness their singularities through sustained cooperative federalism.

In his book '# City Reflections Singularities of Municipal Finance' the author, Sameer Unhale, justifies the need for examining municipal singularities of Indian cities where over 400 million citizens reside in 4000 plus towns and cities. This city population is poised to grow by over 328m to reach 800 million by 2050 (an increase that exceeds the Indian rural population and the entire population of the USA). From financial year 2011 to FY 2018 urban investment in India has jumped from Rs 45,000 cr (0.7% of national GDP) to approximately Rs 1.2 lac crore (0.7% of national GDP). Development focus naturally shifts to sustaining cities for the pivotal role cast on them as crucial 'enablers of growth' to reach the envisioned \$ 5 trillion Indian economy.

Unhale further argues that when over 70% of India's GDP and new jobs are expected to come from cities by 2030 they naturally become the locus of economic

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<sup>1</sup> ISBN: 978-81-956403-3-1

<sup>2</sup> IAS, HP cadre, Retd in Feb 2020 as Secretary, Govt. of H.P.  
E-mail: drpurimachauhan@gmail.com

growth. The ripple multiplier effect of this urbanization wave is making city agglomeration hubs of supply chains, stimulating rural markets, evolving industrial paradigms to leverage emerging economies of scale from demographic densities where the median age of just 28 holds great promise, with remittances and circular migration reshaping livelihoods!

To reap this harvest sourcing and strengthening municipal finances is imperative. The World Bank forecasts that India should invest USD 840 billion over the next 15 years or an average of USD 55 billion per annum into urban infrastructure to effectively meet the needs of the 40% population that is projected to live in cities by 2036. Yet there is a serious mismatch of the financial and human capacity of cities vis-à-vis the growing responsibility cast on them.

To recap the growing focus on urbanization Unhale connects a kaleidoscope of dots that impact the backbone of municipal functioning and finance. The analysis span ranges from constitutional amendments, public finance performance indicators, accounting, financing options like municipal bonds and their challenges, the economic-municipal finance interface, poor alignment between Finance commissions and State Finance Commissions (SFCs), MC Audits, Credit Rating, reliable data collection using Big Data and AI tools, vagaries of adopting PPP modes to hive off tradeables, Independent regulatory commissions, recovering user charges, exploring foreign funding, quality infrastructure and Investment indicators, SDGs, aligning with the UN 'New Urban Agenda', SEZs, Smart city and urban mission finances, municipal viability, manpower issues, ethical dilemmas and lessons learnt in the wake of the Covid pandemic. This broad spectrum of municipal governance focuses squarely on municipal accounting and transforming budgets to align with the needs of an emerging and aspirational citizen-client while dwelling briefly on the threats posed by the political economy and issues of reservations that impact financial systems.

Unhale rises to the daunting task of examining the vortex of challenges and complexities within municipal finance in India and its singularities by scrutinizing earlier efforts to bridge the serious persisting data gap at the third tier of governance which defied a rational diagnostics of the complex municipal finance architecture. The wide canvas of the contents captures a gamut of themes drawing lessons from national and global municipalities. Broadly the urban reform roadmap can be classified into three inter-dependent perspectives -

- 1) quality of life,
- 2) cities as economic engines and
- 3) quality of democracy.

Delivering on these counts depends to a large extent on the financial sustainability and accountability of Urban Local Bodies (ULBs) that need smart, innovative leveraging of assets to supplement municipal finances for buttressing their vital contribution to local, state, and national GDP.

Despite the 74<sup>th</sup> amendment to the Indian constitution, the book dwells on how systemic, strategic, structural, and procedural problems in municipal finances have defied any easy solutions. The 11<sup>th</sup> and 12<sup>th</sup> Finance Commissions took the lead by identifying three vital indices of Decentralisation, Deprivation (especially of drinking water and sanitation), and Devolution that impacted core municipal service funding. The 13<sup>th</sup> FC went beyond these indices to earmark 33% of the municipal grants as performance grants to flow to the ULBs on fulfilling 9 fundamental municipal governance conditionalities to be self-certified by the States. Yet 38% of performance grants remained unutilized. This reform sought to lay a uniform bedrock of systemic, institutionalized, efficient, benchmarked, and streamlined institutions of municipal governance across the country that would foster investor confidence through an enabling municipal environment capable of handling multiple social, economic, and financial responsibilities. Yet only the Service Level Benchmarking (SLB) architecture for Urban Sanitation benchmarks and indicators was carried forward by the 14<sup>th</sup> FC without prescribing how this evidence-based SLB template could be adapted for use in other vital sectors like urban transport by developing suitable benchmarks and indicators.

Against this need projection, Unhale juxtaposes the current inadequacy of municipal resources by referring to the 2022 RBI report on municipal finances in India which is a maiden effort to compile and analyze budgetary data of 201 municipal corporations for the three years ending 2019-20. Although the ULBs share in central taxes has steadily increased since 2010 from 1000 cr (1995-2000) to Rs 87144 cr in 2015-2020 (14<sup>th</sup> FC) the increase is not proportionate to the urban population. As India inches towards the 500 million urban population landmark Indian municipal corporations' revenue receipts are only 0.6 - 0.7% of GDP. In this 'Own tax revenue' comprises only 31-34% of total revenue and non-tax revenue is 30% of total revenue receipts. Fees and user charges account for the highest share of non-tax revenue followed by income from investment, mainly in the form of interest earned and dividends, rental income from municipal properties, and sale and hire charges. Total expenditure has increased to 1.05% of GDP in 2019-20. Borrowing accounted for only 0.05% of GDP - all with huge inter-state variations.

Unhale dwells at length on the narrow scope of its tax generation unless innovative ideas like vacant land tax, share in land use conversion charges, betterment tax, professional tax, advertisement, and entertainment tax sources are plumbed. All FCs emphasized the need for a GIS-mapped Unit Area Value-based Property tax regime since this tax has become a prominent source now as other taxes such as octroi and local body tax stand subsumed in the GST imposed by the 101<sup>st</sup> amendment to the Constitution. The GST council has yet to frame a compensation mechanism to bridge this loss to MCs for which there is a demand for sharing up to 1/6<sup>th</sup> of central and state GST. This demand is justified as the responsibilities of the sub-sovereign Cities increase with the addition of concurrent list items to their tasks.

Streamlining accounting practices and adopting accrual accounting could resolve many of the financial leakages in municipal budgets. Yet reportedly there has been poor adoption of the 2001 CAG task Force's 2004 'Report on accounting and budget formats for ULBs' based on which MoUD formulated the NMAM (National Municipal Accounting Manual) highlighting the need for adopting Accrual Double Entry Accounting System with supporting quarterly reporting on balance sheets, income and expenditure statements, cash flow, receipt and payment statement. Yet no CODE to enforce this reform has been prepared and accounts languish despite 13<sup>th</sup> FC efforts to enforce this regime. Hence the CAG report of 2015-16 captures only 9-14 States' adoption of this systemic reform. Only Tamil Nadu went all the way to even create software to ensure automated data flow to NMAM. Replicating TN success in all ULBs would resolve accounting delays, wrong entries, poor asset mapping for leveraging finances and loans, transparency, enhance ringfencing expenditure and incomes allocated to each function, baseline data support to SFCs and FCs in framing their periodic awards, etc.

Unhale distinguishes the latest practices that are sought to be mainstreamed into cities from traditional accounting when he highlights the need for using Fintech (needed for JAM- jandhan, aadhar, mudra schemes), Digi-wallets, PFMS (Public Financial Management System) that facilitates SNA (Single Nodal Account) ringfenced for each mission and separately for DBT (Direct Benefit Transfers). For logical budgeting and accounting, municipalities need to begin their budgets with an opening statement for assessing the net worth of the municipality and adopt the 7-digit accounting code in their COA (Charter of Accounts) to enforce the RFD type (Results Framework Document) structure. On the 15<sup>th</sup> FC recommendation, MoHUA initiated a City Finance Portal to create a National Urban Payment Platform that used simple digital accounting formats to overcome the reform inertia. Rather than engaging Chartered Accountants, it is imperative to build in-house accounting competency in Municipalities.

All the above imperatives need authentic data banks. Data and its analysis are the new oil for evidence-based policymaking. However, municipality finances suffer from a lack of authentic baseline data collection and availability protocols. Adopting formalized uniform accounting practices would strengthen traditional accounting while mainstreaming modern aspects.

Wide spectrum sector-specific training and capacity building of municipal staff is constantly needed to make municipalities "a spectrum of relevance" that is capable of tackling emerging challenges through infusing nuances of a dynamic accrual accounting system that is adaptive to new arenas. Broadly new financial competencies would encompass training in Big data management and analysis, using ICT tools; playing municipal bond markets; managing mission-based SPVs (Special Purpose Vehicles), and accessing and deploying financial support from VGF (Viability Gap Funding). New capacity-building arenas would require ensuring SDG compliance, unravelling complex pricing and taxing mechanisms in Voluntary Carbon Markets and Green accounting using environment pricing. Ringfencing City

GDP and unlocking the land value estimated at over 15000 cr by using land-use planning reforms like TDRs (transferable Development Rights) is a specialised emerging field to lend buoyancy to municipal funds. Exploring the utility of the World Bank's Local Area Economic Development (LED) is needed in Smart cities based on a SWOT (strengths, weaknesses, opportunities, and threats) analysis of CDPs (city Development plans) that incorporates business needs of multiple stakeholders in economic growth like the public, business entities, NGOs to name a few. Simultaneously the recent COVID experience poses Municipalities with the challenge of contingency planning and catering to impacts of the new regime of WFH or 'work-from-home'.

Change is the only constant today. This oxymoron translates into all the capacity-building areas listed above. This is a formidable challenge even for the Union and State governments. But keeping the growing urbanscape a focus shift to fast track the mainstreaming of such changes in municipalities will strengthen the bottom of the economic pyramid of India where change is being forced at an unprecedented rate. Catching this tide at its crest can surely be a game changer in the development pace of the country.

Cities being the principal catalysts for guiding urbanization through systemic decentralization have to forge innovatively towards fiscal empowerment. However, the reform roadmap outlined above will remain a Utopia unless major institutional and structural challenges are addressed that persist despite two decades having lapsed since the 74th Amendment. No mechanism has evolved to enable the Finance Commissions (FCs) to base their recommendations on the reports of the SFCs. Nor is there any continuity evident in the recommendations of the Finance Commissions due to significant variations in the approaches they employ for assessing the financial requirements of the ULBs or for determining the revenue-sharing arrangements and fixing the criteria for allocating the grants-in-aid to ULBs of different demographic, economic and social compositions.

In the absence of robust and reliable data base performance trends are not captured as Indian Municipalities are not bound by any prescribed benchmarks or indicators to derive standards for revenue-raising or service delivery. Hence they continue to operate at sub-optimal levels without sufficient effort to eliminate inefficiencies that fester and prevent internal mobilization and management of own resources. Any motivation to improve is jettisoned due to the availability of easy financial bailouts from intergovernmental transfers. Hence economy-wide huge costs of inefficiencies continue to plague the municipalities and taxpayers.

This book is virtually a compendium on the peculiarities of municipal finances that make it a daunting but essential challenge for cities to perform in the face of grossly inadequate finances and service delivery capabilities. Yet there is no easy solution except to take this challenge head-on so that cities at the triple bottom line of the national economic pyramid diligently build *atmanirbharta* for the 'greater good of the greatest number' to unleash the collective economic future of the country that resides here. The large agenda of tackling the



traditional backlog of reforms when coupled with huge new challenges is Herculean and needs prioritisation. By capturing the sheer size of this challenge Unhale has forayed bravely into the diagnostics of municipal finances in India that is the backbone of ULBs. However, encapsulating these issues within a hundred pages can at best be a beginning to trigger further area-wise research by others. Perhaps the small size of the book militated against better segregation of municipalities into categories by size, area, and population that impact their finances directly, and often the Union grants have been accused of using a “one size fits all” policy prescription ignoring the feedback on how this formula skews releases and is inequitable.

Structurally this book could have benefitted from certain formatting changes - like the use of sub-headings for easy referencing. The data from municipalities is useful to supplement invaluable arguments forwarded but the narrative loses its impact when interrupted by examples that could have been segregated and confined to boxes for an easy read. Moreover the title talks of City reflections but it does not specify if the focus is municipalities of India or Maharashtra (as most examples cited are from that State). Mountain municipalities have totally distinct singularities of cost-benefit and user charges that need inclusion in this analysis. Further, the 2 chapters at the beginning and end that make a quick comparison of municipalities in India and abroad could perhaps have been clubbed at the beginning to give a telescopic overview and set the agenda for emphasising the criticality of municipal reform languishing at the third tier of governance in India. Chapter sub-headings too could have been used to the advantage of the impact on the reader.

A section on abbreviations would have facilitated easy referencing, especially in an era of multiple schemes and missions that generously use these acronyms, etc. At the end a section on references could have listed numerous previous studies on this subject that may have been used by the author but left unbridged gaps would have become a useful survey of literature to facilitate further research by those who want to explore any single aspect of these issues in-depth.

Yet this comprehensive compilation is a must-read being the first of its kind. It definitely acknowledges the need for cleaning the financial maypole of the Municipal Augean stables so that we can begin to see a path through these woods that are dark and deep, yet municipalities have miles to go before they sleep! This book is sure to catalyze more meaningful debate on this ever-growing area of concern in our urban economic landscape.

## Special Article

### Estimation of Regional Economic Accounts at the City Level:

#### *Studying the Case of City GDP for Thane*

Arjun Kumar<sup>1</sup> Sameer Unhale<sup>2</sup>, Soumyadip Chattopadhyay<sup>3</sup>, and Anshula Mehta<sup>4</sup>

#### **Abstract**

*Urban transformation programs in India like the Smart Cities Mission demonstrate the volition to solve urban challenges. Parameters like the city-level Ease of Living Index and Swachh Survekshan have recently been introduced to demonstrate best practices and infuse competition among the cities. However, the most important economic measure and the yardstick of income known as the Gross Domestic Product (GDP) at the city level is missing from the literature and the policy discourse in India and non-Organization of Economic Cooperation and Development (OECD) countries. Having over one-third of the total population that contributes to over half of the GDP of India, cities need proper planning and execution for their comprehensive economic development. For this, it becomes essential to explore approaches to estimate GDP at the city level in India. This study reviews the literature on regional economic analysis for cities in the context of non-OECD countries and India. Further, a review of existing methodologies for estimating city-level GDP has been carried out to devise an estimation procedure for the GDP of Thane City using possible methods. This paper discusses key observations of the estimation, details a way forward for the measurement of city-level GDP in India by examining the scope for replicability for other cities and recommends the collection and maintenance of specific data to institutionalise this calculation. This paper draws attention to the gaps in the availability, regularity, granularity and credibility of data systems and makes a clarion call for a reliable, comprehensive and multi-dimensional statistical architecture in India.*

**Keywords:** Smart Cities Mission, Gross Domestic Product (GDP), Urban Governance, Swachh Survekshan, Ease of Living Index, City-level Economic Planning

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<sup>1</sup> Director IMPRI

<sup>2</sup> Joint Commissioner, Department of Municipal Administration, Government of Maharashtra; Urban Practitioner; Visiting Senior Fellow, IMPRI

<sup>3</sup> Associate Professor Professor at the Department of Economics and Politics, Visva Bharati University and Visiting Senior Fellow, IMPRI

<sup>4</sup> Researcher, IMPRI

## Background, Review of Literature and Motivation

Rapidly expanding urbanisation around the world has brought a renewed focus on the cities. This has received detailed attention from the United Nations when it launched the Sustainable Development Goals (SDGs) in 2015. It was further reiterated by the United Nations Conference on Housing and Sustainable Urban Development, 2016 (Habitat III), Smart Cities, World Urban Campaign. Closely aligned with SDG 11 (sustainable cities and communities), India, being a signatory to the SDGs, launched its Smart Cities Mission in 2015 and urban transformation programs like *Atal Mission for Rejuvenation and Urban Transformation* (AMRUT), *Pradhan Mantri Awas Yojana-Urban* (PMAY-U), *National Urban Livelihoods Mission* (NULM) and *Swachh Bharat Mission* (Urban) (SBM-U). To instil competitiveness among cities, measures like the ranking of select cities in the *Swachh Survekshan* and *Ease of Living Index* prepared by the Ministry of Housing and Urban Affairs (MoHUA) have also been undertaken. While each of these programs for the cities is important and demonstrates the volition to solve the urban challenges, there has been no such initiative that captures the city-level economic parameters nor the methodologies that could be adopted in this process. The most important economic measure of GDP or income is missing from the literature. Gross Domestic Product (GDP) is one of the most important and standard economic measures which quantifies the value of production of goods and services in any geographical region in a year.

In contrast, the member states of the Organization of Economic Cooperation and Development (OECD) have a dedicated database of regional economic measures and generate the Gross Domestic Product (GDP) for Metropolitan areas other than federal states, by industries. Some global organizations like PWC (2008), McKinsey (2010) and Brookings (2014) have ranked cities across the world based on their economic strength. Their methodology rests on the OECD data and extrapolates the available reliable estimates for the cities in the non-OECD countries. However it must be pointed out that even the above studies do not account for the GDP measurements at the city levels. Given the above background that evidences an embossed gap in the economic methods pursued for cities, it becomes pertinent to explore approaches to estimate the economic measures at the city level. There are inputs that some estimations of city-level GDP have been done for Indian cities such as Mumbai, Ahmedabad and Kolkata, however, the information pertaining to the same is not available in the public domain.

This paper thoroughly reviews the literature and databases on regional economic analysis for cities, especially in the context of non-OECD countries and India. It is primarily built upon the papers “Calculating City-level GDP in India: An Assessment of Methodologies and an Evaluation of Feasibility” (The Economist Intelligence Unit, 2018) and “Consultation Paper on City GDP Measurement

Framework” (Ministry of Housing and Urban Affairs, 2019) [*referred to as “Consultation Paper” henceforth*].

Based on the review of literature, consultations, and discussions, the study explores and formulates feasible methods for estimating city-level GDP in India and Thane. It also suggests other alternative and innovative methods that capture industry-wise activities across the primary, secondary and tertiary sectors. Economic profile, spatial mapping of amenities and economic participation in Thane also form a component of this study. This research study exercise supports the ongoing focus on urban and regional economic growth and strengthens the evidence-based growth in India and non-OECD countries. In particular, the objectives of the study are to assess various methods and databases for estimating GDP at the city level and measuring the GDP of Thane city and analysing the results in recent years and suggesting a way forward.

## Database

In order to explore methods of statistical measurement for estimating city-level GDP in India in general and for Thane city in particular, this research study has been based on a review of secondary official databases. Data sources utilised in this study are given below (Table 1).

*Table 1: Data Sources*

	<b>Name of the Report</b>	<b>Year Published</b>	<b>Study Year</b>	<b>Organisation/Person</b>
	Economic Characteristics of Unincorporated Non-Agricultural Enterprises (excluding Construction) in India: NSS 67th Round, July 2010-June 2011	2012	2010-11	National Sample Survey Office, Ministry of Statistics and Programme Implementation
	A Report on Unincorporated Non-Agricultural Enterprises (Excluding Construction) Based on Data Collected in State Sample: 67th Round of National Sample Survey (July 2010 - June 2011) Vol. I	2013	2010-11	Directorate of Economics and Statistics, Planning Department, Government of Maharashtra

	Employment and Unemployment Situation in India: NSS 68th Round, July 2011-June 2012	2014	2011-12	National Sample Survey Office, Ministry of Statistics and Programme Implementation
	Census of India (Houselisting and Population, Housing)		2011	Office of the Registrar General of India and Census Commissioner, Ministry of Home Affairs
	District Census Handbook Thane: Village and Town Directory	2014	2011	Directorate of Census Operations, Maharashtra
	District Census Handbook Thane: Village and Townwise Primary Census Abstract	2014	2011	Directorate of Census Operations, Maharashtra
	A Report On 'Employment and Unemployment Situation' Based On Data Collected in State Sample Of 68th Round Of National Sample Survey (July 2011 - June 2012) Volume I	2014	2011-12	Directorate of Economics and Statistics, Planning Department, Government of Maharashtra
	A Report on Unincorporated Non-Agricultural Enterprises (Excluding Construction) Based on Data Collected in Central, State and Pooled Samples of 67th Round of National Sample Survey	2016	2010-11	Directorate of Economics and Statistics, Planning Department, Government of Maharashtra
	Employment and Unemployment Situation in Cities and Towns in India: NSS 68th Round, July 2011-June 2012	2016	2011-12	National Sample Survey Office, Ministry of Statistics and Programme Implementation
0	Report on Sixth Economic Census Maharashtra State	2016	2013-14	Directorate of Economics and Statistics, Planning

				Department, Government of Maharashtra
1	Report on Pooling of Central and State Sample Data: 68 <sup>th</sup> Round of NSS Employment and Unemployment	2017	2011-12	Directorate of Economics and Statistics, Planning Department, Government of Maharashtra
2	Economic Survey of Maharashtra 2018-19	2019	2018-19	Directorate of Economics and Statistics, Planning Department, Government of Maharashtra

Apart from the above datasets, for estimating the rural and urban income at the state level, additional datasets are required as suggested by the National Accounts Statistics for their methodology at the national level, in the document National Accounts Statistics: Sources and Methods 2012, CSO, MoSPI, GoI (Chapter 31 Estimation of Rural and Urban Income, 2004-05) (Annexe Table 1).

### Methodology

This paper attempts to build an economic profile of Thane city from the data sources listed above, along with spatial mapping at the ward level of Thane city.

The various methods of estimation of Gross City Domestic Product (GCDP) are:

1. Apportioning based on population
2. Apportioning based on sectoral employment
3. Using Gross Value Added Per Worker (GVAPW) and Number of Workers by NIC Categories
4. Urban Maharashtra (UM) + Labour Input (LI) Method
5. Thane City (TC) + LI Method

The first three methods are simple estimations based on available aggregated data and quick calculations. However, this study focuses on granular-level unit record data from NSS and other official information.

Therefore, it broadly utilises methods 4 and 5, i.e., the method also proposed by the Consultation Paper, with minor additional elements. The steps for this method are detailed below:

**Step 1: Listing Maharashtra's Gross State Domestic Product (GSDP) by Compilation Categories (See Table 2)**

**Step 2: Estimating Rural and Urban GSDP for Maharashtra**

***Method 1: LI Method (using NSS ES 2010-11<sup>5</sup> and NSS EUS 2011-12<sup>6</sup>)***

This method for splitting GSDP into rural and urban components is proposed by the Consultation Paper. It utilises ES 2010-11 for obtaining GVAPW and EUS 2011-12 for obtaining the estimated number of workers (EW), by compilation categories, for both Rural and Urban sectors. For each sector, the GVA by compilation categories is computed by multiplying GVAPW and Estimated Workers for the respective category. The percentage shares of Urban GVA in Total (Rural + Urban) GVA are then obtained. These shares are applied on compilation category-wise GSDP to obtain Estimated Urban Maharashtra GDP by Compilation Categories.

***Method 2: CSO NAS Method for estimating Rural and Urban National replicated at the State level***

The Central Statistics Office (CSO) has adopted an allocation procedure in which economic activity-wise net value added (NVA) is allocated between rural and urban using certain indicators available with a rural/urban break-up for each economic activity. The indicators include results from various surveys, the labour input method, and administrative records which provide a rural/urban breakup of the indicators.

We endeavour to replicate this national-level methodology at the state, to obtain a rural/urban breakup of the Maharashtra GSDP. The computation using this approach is yet to be carried out, as we seek clarifications regarding the methodology and explore rural/urban data availability at the state level.

**Step 3: Listing Urban Maharashtra GSDP by Compilation Categories**

**Step 4: Calculating GVAPW (using ES 2010-11) and Estimated Workers (using EUS 2011-12) by Compilation Categories, for Urban Maharashtra and Thane City**

**Step 5:**

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<sup>5</sup> National Sample Survey 67<sup>th</sup> Round Enterprise Survey 2010-11

<sup>6</sup> National Sample Survey 68<sup>th</sup> Round Employment and Unemployment Survey 2011-12

- By LI method, calculating Urban Maharashtra Gross Value Added (GVA) from Urban Maharashtra GVAPW and Urban Maharashtra Estimated Workers, and,
- Calculating Thane City GVA from
  - Urban Maharashtra GVAPW and Thane City Estimated Workers (UM Method)
  - Thane City GVAPW and Thane City Estimated Workers (TC Method)

**Step 6:** Calculating the share of Thane City GVA in Urban Maharashtra GVA by Compilation Categories and applying the shares to Estimated Urban Maharashtra GSDP, to obtain the Estimated Thane City Gross City Domestic Product (GCDP) by Compilation Categories

**Step 7:** Summing Estimated Thane City GCDP by Compilation Categories from Step 6 to get overall Thane City GCDP

This study estimates Thane GCDP for the years 2011-12 to 2017-18, using the UM+LI Method.

Note:

- While the TC+LI Method captures Thane city's spatial economic differential, it suffers from the issue of inadequate compilation of category-wise samples. To address this, it is recommended to use pooled (State + Central) samples. We are in the process of obtaining this data from the Directorate of Economics and Statistics (DES), Maharashtra.
- To establish a concordance between the CSO classification of economic activities used in GSDP, and the NIC codes used in National Sample Surveys, we have formulated certain compilation categories for computation (Table 2).

*Table 2: Compilation categories for estimation of Thane GCDP and their corresponding NIC-2008 Sections*

S.No.	Compilation Category	NIC-2008 Sections
1	Agriculture, Forestry & Fishing	A
2	Mining & Quarrying	B
3	Manufacturing	C
4	Construction	F
5	Electricity, Water, Gas	D + E
6	Railways, Transport, Storage	H
7	Communication	J
8	Trade, Hotels, Restaurants	G + I
9	Banking & Insurance	K
10	Real estate	L



11	Public administration	O
12	Other Services	M + N + P + Q + R + S + T + U

### ***Limitations and Scope for Replicability***

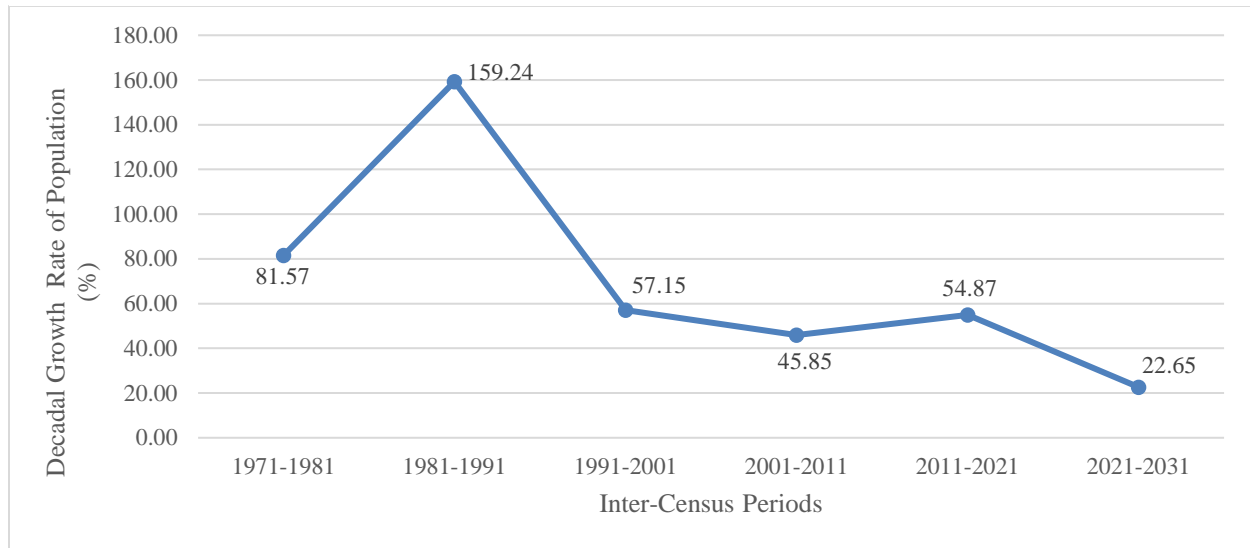
- One of the most important limitations of this exercise will be the availability of adequate (sample) and periodic data. However, the NSS rounds take cities with more than 1 million population as per Census 2001 in any district as a separate stratum and for these cities, estimates can be generated. For other cities, as they fall into general urban stratum, it will be tough to compute and estimate their figures. The availability of periodic data is another challenge (NSS data which are useful here often come once in five years), coupled with the constraints of comparability and consistency with NAS estimates.
- Another limitation of this method (UM Method) will be the assumption of equal GVAPW for any given economic sector across the state (by rural and urban sectors). The differences in spatial productivity across cities can be captured and apportioned by having some assumptions and indexes, however, it might not explain the actual scenario by each economic sector.
- To tackle issues due to inadequate sample size, pooled sample data needs to be procured and utilised.
- The CSO NAS methodology for estimating rural and urban income at the national level needs to be replicated at the state level, for which a white paper on the methodology should be released by the CSO.
- The method suggested here has a lot of scope for replicability for other cities (million-plus cities as per Census 2001) as the estimates of rural and urban income are calculated based upon the standard method suggested by NAS and the share of urban GVA of a city to the total urban GVA (using labour input method) is applied to estimated urban GSDP. This will ensure comparability and consistency.

### **Summary of Findings**

#### **1. About Thane: An Economic Profile**

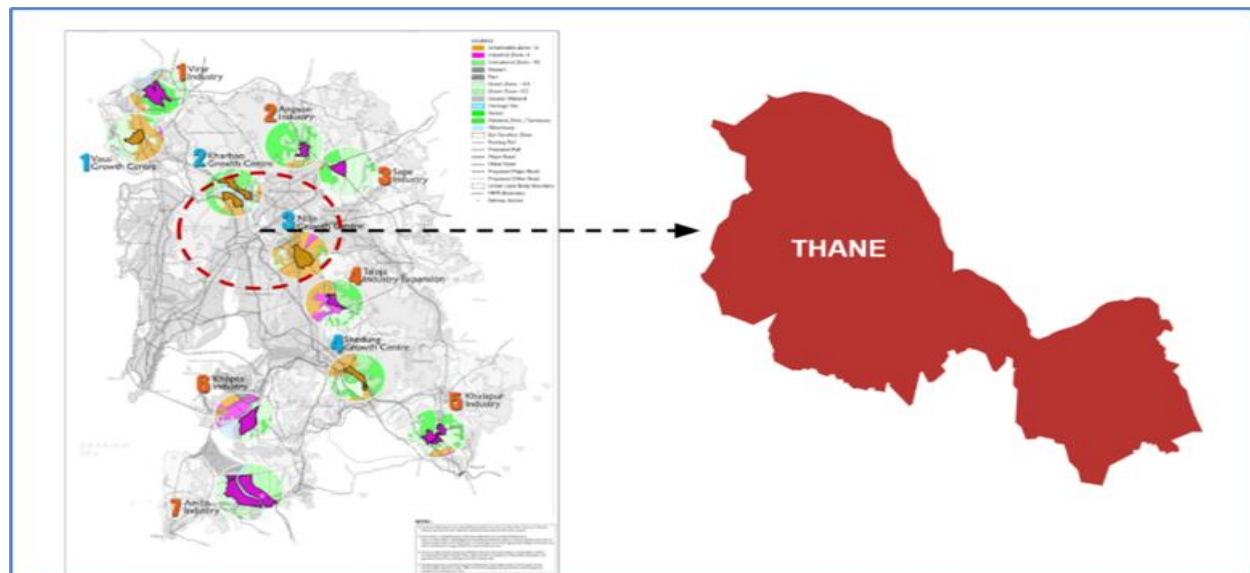
This section gives an insight into the demographic, spatial and socio-economic context of Thane City, which is a part of the Mumbai Metropolitan Region of the Maharashtra State. The city had a population of around 1.8 million in 2011. In most of the parameters of development, Thane city fares at the list of top cities among 4302 cities in India. Table 3 highlights some key demographic details of Thane from the Census 2011. Figure 1 describes the trend of the decadal growth rate of the population of Thane.

Figure 1: Decadal Growth Rate of Population for Thane City, 1971-1981 to 2021-2031



Source: Computed by authors from Thane Local Economic Development Plan

Figure 2: Thane as a Key Economic Node for MMRDA (Mumbai Metropolitan Region Development Authority)



Source: Thane Local Economic Development Plan

*Table 3: Demographic details of Thane City, 2011*

<b>Population</b>	<b>18.4 lakhs</b>
<b>Decadal Growth Rate of Population (2001-2011)</b>	<b>45.86%</b>
<b>Area</b>	<b>128 km<sup>2</sup></b>
<b>Population Density</b>	<b>14361</b>
<b>Scheduled Caste Population %</b>	<b>6.84</b>
<b>Scheduled Tribe Population %</b>	<b>2.32</b>
<b>Literacy Rate</b>	<b>89.41</b>
<b>Sex Ratio</b>	<b>888</b>
<b>Child Sex Ratio</b>	<b>908</b>
<b>Source: Census 2011</b>	

*Table 4: Percentage Share of Establishments by Broad Industry Division, 2013-14*

<b>Broad Industry Division</b>	<b>Maharashtra</b>	<b>Urban Maharashtra</b>	<b>Thane District</b>	<b>Thane City</b>
<b>Primary</b>	26.0	2.5	2.2	0.8
<b>Secondary</b>	17.0	22.0	24.3	20.5
<b>Tertiary</b>	57.0	75.5	73.5	79.7
<b>Total</b>	100	100	100	100
<b>Number (in lakhs)</b>	61.37	28.43	4.39	0.74
Source: 6 <sup>th</sup> Economic Census				
* includes Mumbai City + Mumbai Suburban				

*Table 5: Estimated Number and Percentage of Persons Working, Unemployed and Not In Labour Force (ages 15 years and above) by Sex for Thane City, 2011-12*

Category	Male		Female		Persons	
	Number	Percentage	Number	Percentage	Number	Percentage
Workers	4.93	70.8	1.52	22.9	6.45	47.4
Unemployed	0.24	3.4	0.08	1.2	0.32	2.3
Not in the Labour Force	1.80	25.8	5.05	75.9	6.84	50.3
Total	6.96	100.0	6.64	100.0	13.61	100.0
WPR (per 1000)	708		229		474	

Source: NSS Employment and Unemployment Survey, 2011-12. Numbers are in Lakhs.

*Table 6: Percentage Shares of GVA by Compilation Categories, 2010-11*

Compilation Category	Urban Maharashtra	Thane District	Thane City
Manufacturing	25.7	48.7	12.6
Electricity, Water, Gas*	-	-	-
Railways, Transport, Storage	5.6	5.3	10.4
Communication	0.6	0.7	0.4
Trade, Hotels, Restaurants	44.3	31.3	48.5
Banking & Insurance	1.0	0.8	1.0
Real estate	0.8	0.5	0.4
Other Services	21.9	12.7	26.7
Total	100.0	100.0	100.0
Total GVA (in ₹ crore)	63849.7	15225.7	5042.8

Source: Computed by Authors using NSS Enterprise Survey 2010-11

Note: ES 2010-11 does not include Agriculture, Forestry and Fishing, Mining and Quarrying, Construction, and Public Administration sectors

\* Electricity, Water, Gas

Table 4 provides the shares of broad industry divisions in Thane city establishments, with figures for Maharashtra, Urban Maharashtra and Thane District, for comparison. As expected, Thane city has about 80 per cent share of the tertiary sector. Table 5 focuses on the workforce and unemployment figures for Thane city, by sex, for the

age group of 15 years and above. Finally, Table 6 gives an idea of the output from Thane enterprises, for sectors covered in NSS 2010-11. Figures for Urban Maharashtra and Thane District are given as well.

Figures 3, 4, 5 and 6 stem from the spatial mapping component of the study. All four figures have been prepared by the research team using Thane city ward-wise data from Census 2011.

Figure 3: Ward-wise Female WPR, Thane, 2011

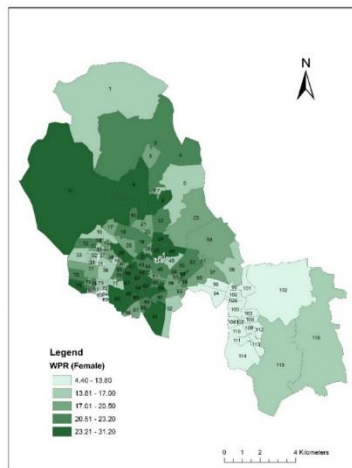


Figure 4: Ward-wise Male WPR, Thane, 2011

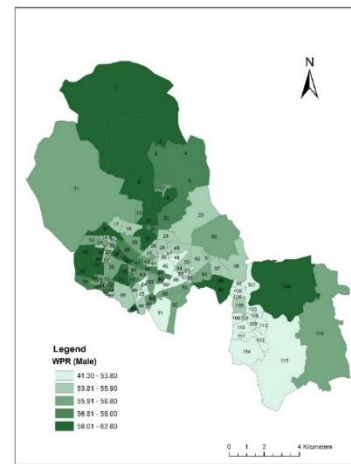


Figure 5: Ward-wise Access to Banking, Thane, 2011

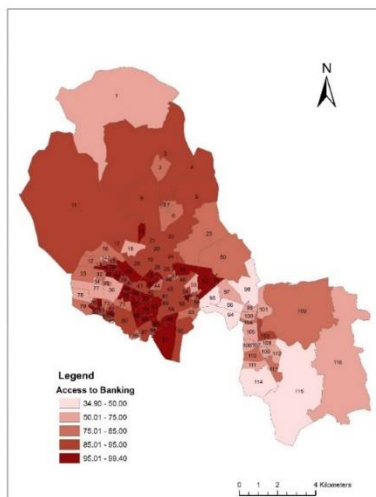
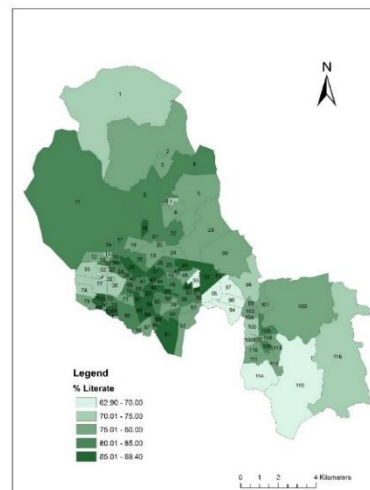


Figure 6: Ward-wise Literacy Rate, Thane, 2011



## Review of Methods for Calculating City GDP

### 1. Simple Methods

There are some simple methods (for estimating GDP at the city level). The summary of outputs from applying these methods on data<sup>7</sup> from ES 2010-11, Census 2011, Maharashtra GSDP 2011-12 and EUS 2011-12 are given below in Table 7.

*Table 7: Summary of Outputs from Simple Methods of estimating city-level GDP, 2011-12*

Method		Thane City GDP
1. Apportioning using City Population <sup>8</sup>	Using State Population and State Domestic Product	₹ 18,851 Crore
	Using District Population and District Domestic Product	₹ 26,903 Crore
2. Apportioning Using Sectoral Employment <sup>9</sup>	Assuming distinct Worker Population Ratios for City and State	₹ 30,873 Crore
	Assuming an equal Worker Population Ratio for City and State	₹ 36,118 Crore
3. Using Gross Value Added Per Worker and No. of Workers by NIC Compilation Categories <sup>10</sup>		₹ 6718 Crore

<sup>7</sup> Thane City Population = 1.84 million (2011 Census); Thane District Population = 11.1 million; Maharashtra Population = 114.2 million (2011 Census); Maharashtra GSDP = ₹ 11.70 lakh crores (2011/12 CSO)

<sup>8</sup>  $City\ GDP = \frac{City\ Population}{State\ (District)Population} \times Gross\ State\ (District)Domestic\ Product$

<sup>9</sup>  $City\ GDP = \sum_{i=1}^n \frac{CW_i}{SW_i} \times GSDP_i$

Where,  $CW_i$  = Number of workers in the  $i^{th}$  economic sector in the city, for n sectors

$SW_i$  = Number of workers in the  $i^{th}$  economic sector in the state, for n sectors

$GSDP_i$  = Contribution of  $i^{th}$  economic sector in GSDP

<sup>10</sup>  $City\ GDP = \sum_{i=1}^n GVAPW_i \times W_i$

Where,  $GVAPW_i$  = Urban State Gross Value Added Per Worker in  $i^{th}$  Compilation Category of NIC

$W_i$  = Number of city workers in  $i^{th}$  Compilation Category of NIC

For n such Compilation Categories

## 2. UM+LI and TC+LI methods

Table 8: Summary of GDP values obtained for Thane City, Thane District

Region	Gross Domestic Product 2011-12 (in ₹ crore)	Notes
Maharashtra <sup>#</sup>	1170120	
Urban Maharashtra <sup>^</sup> (LI Method)	694533	59.3% of Maharashtra GSDP
Urban Maharashtra <sup>^</sup> (CSO NAS Method)	To be computed	-
Thane District <sup>+</sup>	158190	13.5% of Maharashtra's GDP
Thane City <sup>^</sup> (UM Method + LI Method)	26037.8	3.1% of Estimated UM GDP
Thane City <sup>^</sup> (UM Method + CSO NAS Method)	To be computed	-
Thane City <sup>^</sup> (TC Method + LI Method)	22927.9	2.8% of Estimated UM GDP
Thane City <sup>^</sup> (TC Method + CSO NAS Method)	To be computed	-
<sup>#</sup> From Economic Survey of Maharashtra 2014-15 <sup>+</sup> From District Domestic Product of Maharashtra 2004-05 to 2013-14 <sup>^</sup> Computed by authors		

### 3. CSO NAS Methodology for Estimating Rural and Urban Income

The last year for which economic activity-wise rural/urban breakup of value added is available is 2011-12 (year of base change). We are trying to communicate with CSO to try and replicate this methodology at the state level, for a refined approach to GCDP estimation. However, we have not been able to reach a resolution and further seek to attempt the same.

### Measurement and Analysis of Thane GCDP 2011-12 to 2017-18

As discussed in earlier sections, the TC+LI method at present is hindered by issues of inadequate sample sizes. Hence, this study utilises the UM+LI method for measuring and analysing Thane GCDP for the years 2011-12 to 2017-18. The data used for computation in this section is obtained from the Economic Survey of Maharashtra 2018-19 from the Directorate of Economics and Statistics, Maharashtra.

*Table 9: Estimated Thane City GVA by Compilation Categories, using UM + LI Method (₹ crore)*

Compilation Category	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Agriculture, Forestry & Fishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mining & Quarrying	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Manufacturing	4568.5	5237.0	6020.7	6350.2	6924.6	7001.7	7630.8
Construction	1528.7	1593.4	1756.2	1919.7	1905.6	2063.4	2302.6
Electricity, Water, Gas	350.8	382.8	527.7	512.0	541.3	518.3	677.4
Railways, Transport, Storage	1566.2	1831.5	1897.7	2121.4	2318.5	2481.4	2756.8
Communication	812.1	920.4	1110.5	1261.9	1484.0	1478.2	1459.6
Trade, Hotels, Restaurants	3063.6	3707.1	3954.9	4314.3	4531.0	5143.9	5806.8



Banking & Insurance	3759.2	4118.2	4776.6	5234.4	5686.1	5844.3	6555.9
Real estate	9373.2	11026.6	13053.4	15341.7	17266.8	19841.0	22389.8
Public administration	1149.1	1275.6	1410.0	1523.6	1670.3	1870.2	2097.8
Other Services	3716.7	4369.0	5069.9	5933.8	6778.1	7859.1	9096.0
<b>Total</b>	<b>29888.1</b>	<b>34461.6</b>	<b>39577.6</b>	<b>44512.9</b>	<b>49106.4</b>	<b>54101.5</b>	<b>60773.5</b>
% of Maharashtra GSVA	2.61	2.66	2.69	2.80	2.85	2.85	2.89
% of estimated Urban Maharashtra GSVA	3.65	3.69	3.73	3.80	3.83	3.91	3.92

Note: The compilation categories used in this calculation would require clarification from the DES regarding sub-categorisation, for final confirmation.

*Table 10: Estimated Percentage Shares of Compilation Categories in Thane City GVA*

Compilation Category	GVA (₹ crore)	% Share
Agriculture, Forestry & Fishing	0.0	0.0
Mining & Quarrying	0.0	0.0
Manufacturing	7630.8	12.6
Construction	2302.6	3.8
Electricity, Water, Gas	677.4	1.1
Railways, Transport, Storage	2756.8	4.5
Communication	1459.6	2.4
Trade, Hotels, Restaurants	5806.8	9.6
Banking & Insurance	6555.9	10.8
Real estate	22389.8	36.8

Public administration	2097.8	3.5
Other Services	9096.0	15.0
<b>Total</b>	<b>60773.5</b>	<b>100.0</b>
% of Maharashtra GSVA	2.89	
% of estimated Urban Maharashtra GSVA	3.92	
* The estimates may be lower due to inadequate sample size for Thane City, for instance, for Electricity, Water and Gas, there are no entries. They can be recomputed using pooled sample data.		

Figure 7: Shares of Compilation Categories in Estimated Thane City GVA, 2011-12 to 2017-18 (UM+LI Method)

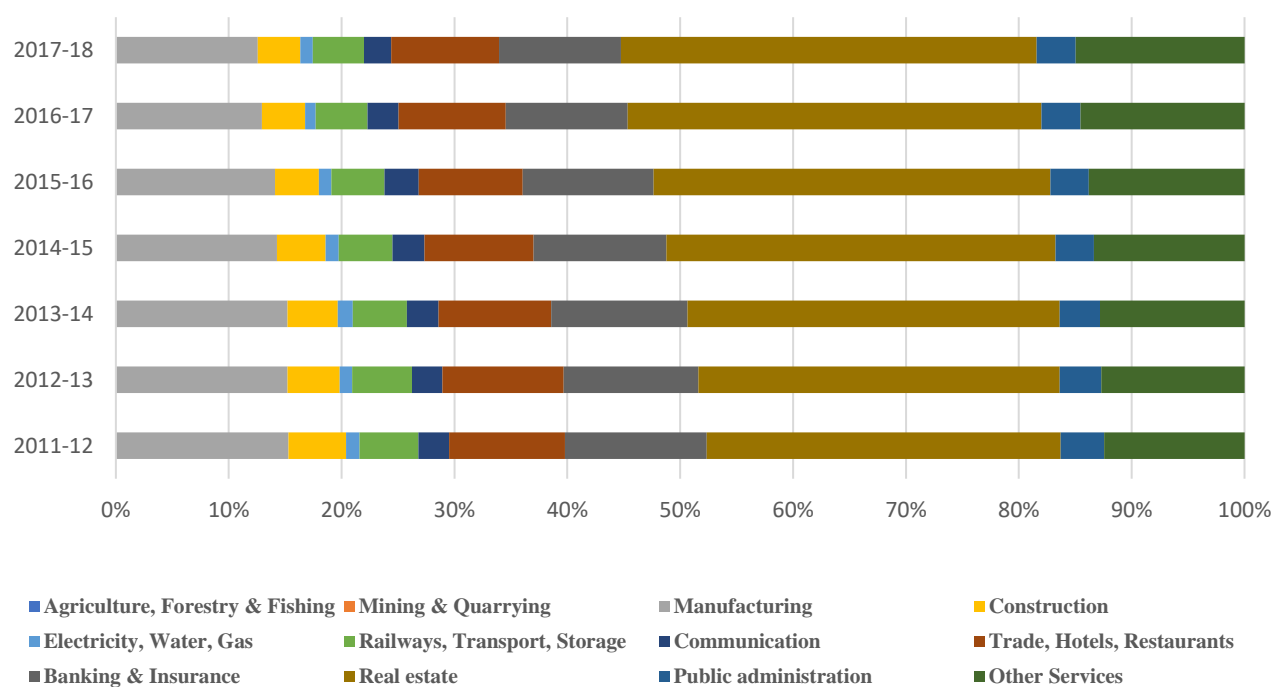


Figure 8: Percentage Shares of Compilation Categories in Estimated Thane City GVA for 2017-18 (UM+LI Method)

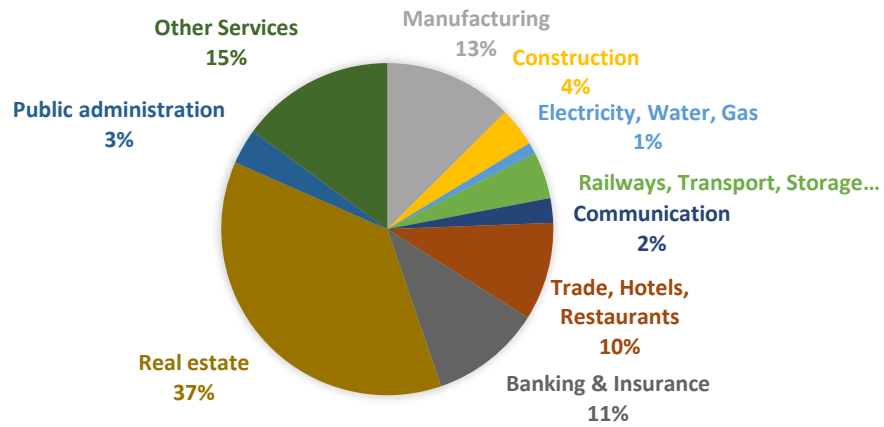
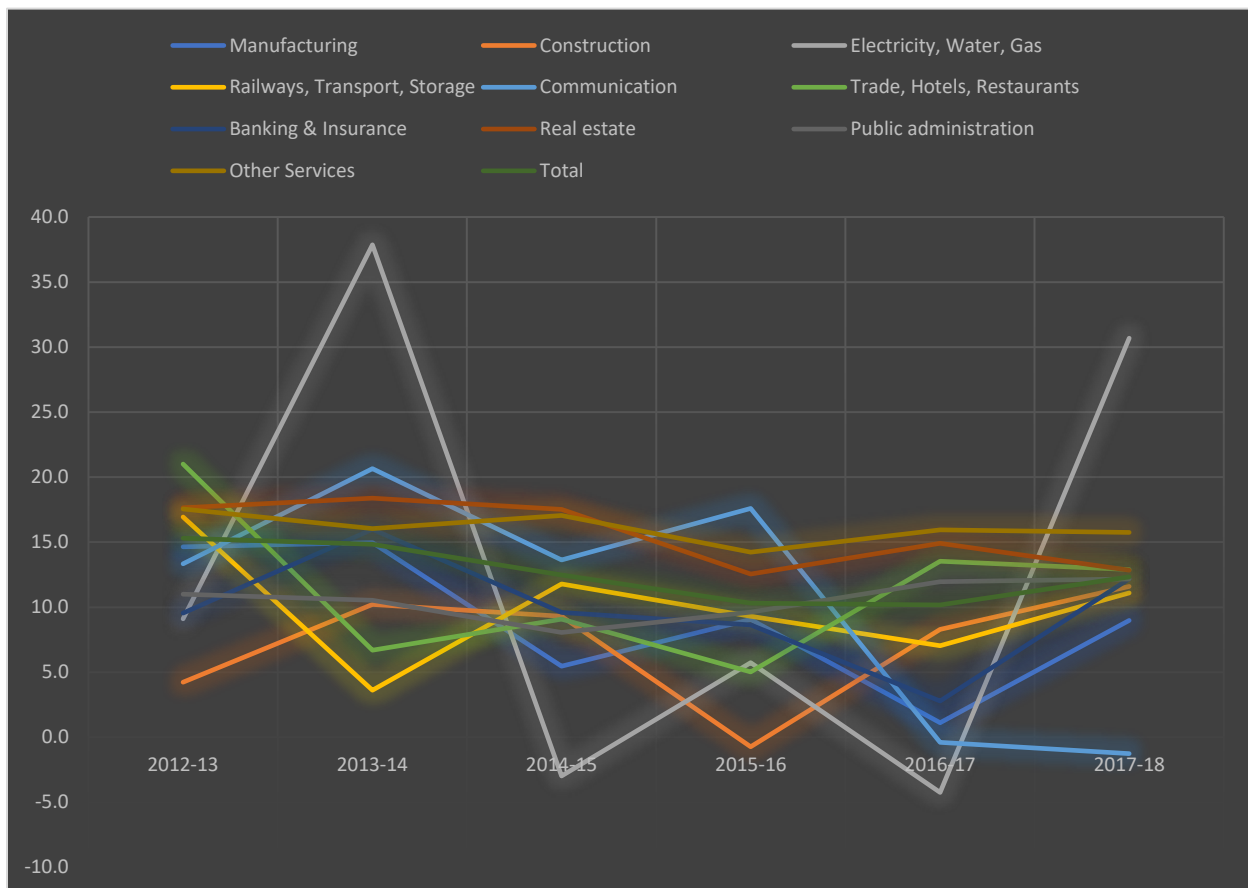
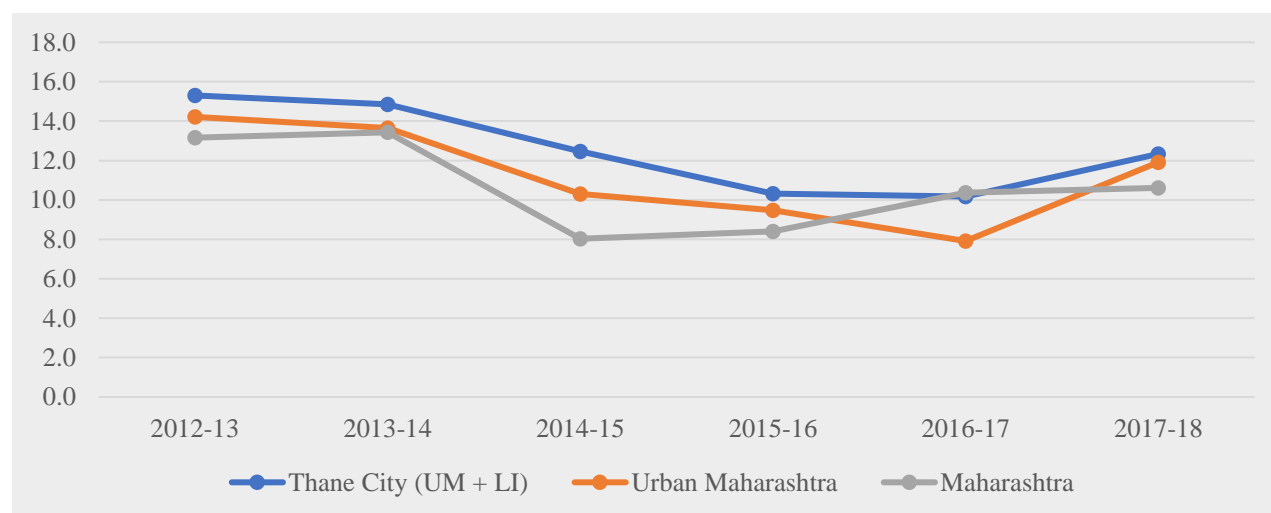


Figure 9: Annual Growth Rate of GVA of Thane City by Compilation Categories



**Highlights from the findings for Thane City GDP Estimation (2011-12 to 2017-18)**

- Thane City makes up 1.64% of the State population and 3.62% of the population of Urban Maharashtra.
- The estimated GVA (by UM+LI method) for Thane City for FY 2017-18 is ₹ 60773 crores. Thane City accounts for 2.89% of Maharashtra's income and 3.92% of Urban Maharashtra's, as per this estimate.
- The estimated Gross City Domestic Product (GCDP) for Thane City, FY 2017-18, would, therefore, be ₹ 69695 crores (with GSDP taken from Economic Survey of Maharashtra 2018-19, Directorate of Economics and Statistics, Maharashtra). Real estate (37%), manufacturing (13%), banking and insurance (11%), trade, hotel & restaurants (10%), and other services (15%) sector constitute the majority of these.
- Thane City's per capita GDP (as estimated from this study) is over ₹ 3 lakh - almost double that of the state.
- The own-tax to GDP ratio for the city stands at about 2.46%. The actual expenditure of Thane Municipal Corporation in the FY 2018-19 was ₹ 3642 crores.
- Thane City's estimated annual growth rate of GVA has consistently been around 2 percentage points higher than that of Urban Maharashtra and the state.

*Figure 10: Annual Growth Rate of GVA*

## Conclusion

This paper attempts to review existing methodologies of estimating GDP at the city level and to examine the scope and feasibility of adapting them to the Indian context, by taking the case of Thane city. It has explored various approaches to estimating City GDP or GCDP. These include simple methods of apportioning the GSDP to the city by applying an appropriate weight such as population or employment, as well as methods proposed by the Consultation Paper by MoHUA, with modifications. Limitations and the scope of replicability of such an exercise have also been outlined.

This study provides a basic economic profile of Thane city by utilising secondary official data sources, to establish a context. The profile includes a demographic outline, details of workforce participation and a compilation category-wise establishments and value-added. Outputs of the spatial mapping component of this study have also been provided, with a ward-wise visualisation of indicators such as Worker Population Ratio, Access to Banking and Literacy Rate.

The methodologies used for GCDP estimation in this study are those based on simple calculations as well as more rigorous methods - namely UM+LI and TC+LI methods - based on data at the granular level. The CSO NAS methodology for estimating rural and urban national income could also be replicated at the state level, after seeking clarifications from the CSO. A part of the estimation remains, as there is an unavailability of the required pooled sample data (centre and state sample) from the DES. Further computation would be carried out as and when the pooled sample data would be obtained. The methodology would also be refined and finalised after requisite clarifications and feedback from concerned stakeholders.

The estimated Gross City Domestic Product (GCDP) for Thane City, FY 2017-18, stood at ₹ 69695 crores. Real estate (37%), manufacturing (13%), banking and insurance (11%), trade, hotel & restaurants (10%), and other services (15%) sectors constitute the majority of these. Thane City accounts for 2.89% of Maharashtra's income and 3.92% of that of Urban Maharashtra, as per this estimate. Thane City's per capita GDP is over ₹ 3 lakh - almost double that of the state. Thane City's estimated annual growth rate of GVA has consistently been around 2 percentage points higher than that of Urban Maharashtra and the state.

Overall, this study pioneers the organisation of the structures and processes of estimation and enables evidence-backed policymaking and planning. This becomes instrumental for the growth and development of cities and in ascending towards the vision of a US\$ 5 trillion economy of 'New India'.

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## Special Article

### Women Reservation Act, 2023 and Participation of Women in the Electoral Politics of India

Vibhuti Patel<sup>1</sup>

#### Abstract

*Gender-deficient democracy is a result of a number of barriers and restraints that prevent women from joining the electoral process. With the passing of the Nari Shakti Vandan Adhiniyam (NSVA) 2023 (128th Constitutional Amendment Bill) i.e. Women Reservation Act, 2023 that promises women's reservation in the Parliament of India, Indian women have entered an era of stronger representation and agenda-setting power at a national level. Resistance to passing the Women's Reservation Bill for more than 37 years has led to grave injustice to women representatives and to the democratic process of the country. Despite making promises in their manifestos to provide reservation of seats to women, most political parties themselves shy away from giving seats to women candidates. In this context of gender deficit in democracy, it is important to enhance the capacity of women to contest elections for legislative assemblies of the states and union territories and the national parliament.*

**Keywords:** Electoral empowerment, Capacity building, Gender-deficient democracy, Women's electoral participation, Women Reservation Act, 2023

#### Introduction

With the passing of the Nari Shakti Vandan Adhiniyam (NSVA) 2023 (128th Constitutional Amendment Bill) i.e. Women Reservation Act, 2023 that promises women's reservation in the Parliament of India, Indian women have entered an era of stronger representation and agenda-setting power at a national level. On 22-9-2023, the bill became an Act of the Parliament of India. The NSVA ensures 33% reservation of seats in the Lok Sabha and State Legislative Assemblies for women. The Act reserves one-third of the seats in Lok Sabha, State legislative assemblies and the Delhi assembly. This will also apply to the seats reserved for SCs (Scheduled

<sup>1</sup> Visiting Distinguished Professor, IMPRI  
Email: vibhuti.np@gmail.com

Castes) and STs (Scheduled Tribes) in Lok Sabha and State Legislatures. In the seats reserved for SCs/STs, the act provides one-third of the seats to be reserved for women on a rotational basis. The NSVA introduced Article 332A, which mandates the reservation of seats for women in every state Legislative Assembly (Thakur, 2004).

### **From Toehold to Foothold: Indian Women's Journey in the Electoral Politics**

Currently, There are 82 women Members of Parliaments in LS (15.2%) and 31 women in RS(13%). While the number has increased significantly since the 1st Lok Sabha (5%) but is still far lower than in many countries. Women candidates find it very difficult to win the legislative Assembly and Parliamentary elections due to the onslaught of money power, muscle power and misogyny. It can be countered only by affirmative action of women's quota. According to the Sweden-based International Institute for Democracy and Electoral Assistance (IDEA), besides 40 countries the countries which have mandated quotas for women, major political parties in more than 50 countries have voluntarily set out quota provisions in their own statutes. According to recent UN Women data, Rwanda in Africa (61%), Cuba (53%) and Nicaragua (52%) in Latin America are the top three countries in women representation in the parliament. Bangladesh (21%) and Pakistan (20%) as well are ahead of India in case of representation of women in the National Assembly. According to the report of the Election Commission of India (ECI), women represent 10.5% of all Members of Parliament as of October 2021 and for all the state assemblies, women MLAs' representation stands at an average of 9%.

### **Reservation for Women in Panchayati Raj Institutions (PRIS)**

Since the 73rd and 74th constitutional amendments in 1994 granted 33% and over the last 30 years more than 18 states have granted 50 % reservation of seats for women in the urban and rural local self-government bodies, women have become a political constituency both as voters and as candidates (Patel, 2002). The reduction of the voting age to 18 has brought a huge number of young educated women to the voter's list. Voter education programmes conducted by NGOs and the Election Commissioner's office also make them aware of the importance of voting to nurture the democratic governance of India. Political parties have recognised women voters but when it comes to the selection of candidates they ignore dedicated, sincere women party workers who have devoted the best years of their life to the work of their respective parties. Till now, the selection of candidates is based on lineage, muscle power and money bag (Heredia, 2012).

Lack of gender perspective is a marked feature of the Party Manifestos of major political parties. For the past two decades, every National Level Party has been offering lip services to promote women's agenda due to pressure from the National

Alliance of Women's Organisations and united efforts of 8 All India Women's organizations such as All India Women's Conference (AIWC), National Federation of Women (NFIW), All India Democratic Women's Association (AIDWA), Mahila Daxata Samiti (MDS), Joint Women's Programmes (JWP), Forum for Child Care Services (FORCES), Centre for Women's Development Studies (CWDS) and Young Women Christian Association (YWCA), in actual reality all political parties have betrayed women's cause. Its glaring example is the absence of a concerted effort to pass the bill for 33% reservation for women in the parliament that was introduced in the Parliament of India after 14 failed attempts between 1996 and 2011.

Since the year 2000 women's groups have been giving memorandums to all political parties to fulfil their charter of demand and not to give tickets to men with criminal records and past histories of violence against women in their personal or public life. But none of them have included this demand in their election manifesto or political practice.

### Historic Legacy of Lobbying for the Women's Reservation in India

The Women's Reservation Bill was first introduced in the Lok Sabha as the 81st Amendment Bill in September 1996 by the Deve Gowda-led United Front government. Though the bill was introduced in Parliament several times, it was not taken up for consideration and put to vote. Successive governments had shelved it on the pretext of what they call 'lack of political consensus'. India taking presidency in G20 and raising the lead slogan of 'women-led development' and 27 years of hard work and dedication by the women's rights movement have finally materialized into a historic win in the parliament of India. This opens the way ahead for our enduring struggle to achieve political equality (Jain, 2000).

#### Women's Reservation Bill: A Timeline

- ◆ First introduced in Parliament in 1996 under Prime Minister HD Deve Gowda; no government has passed the bill yet
- ◆ In its current version, called the 108th Constitution Amendment Bill, it reserves one-third (33%) of all seats for women in the Lok Sabha and the State legislative assemblies
- ◆ Reserves 1/3rd of total number of seats for Scheduled Castes and Scheduled Tribes for women of those groups
- ◆ In the Lok Sabha, 1/3rd of all constituencies will be reserved for women on rotation basis
- ◆ Reservation will cease to exist 15 years after the commencement of the Amendment Act
- ◆ The Rajya Sabha passed this bill on March 9, 2010, but the Lok Sabha never voted on it

**SOURCE** 'Women legislators and economic performance' paper by the United Nations (UN) University World Institute for Development Economics Research, 2018

#### Why Women in Legislation Matter

- ◆ **Better Economic Performance:** Women legislators raise economic performance by about 1.8 percentage points per year
- ◆ **Fewer Criminal Charges:** Women are only one-third as likely as men to be carrying pending criminal charges while entering office
- ◆ **Less Corrupt:** Their material assets grow by 10 percentage points lesser than male counterparts, indicating that women are less likely to be corrupt
- ◆ **Get Work Done:** Share of incomplete road infrastructure projects is 22 percentage points lower for women than male legislators
- ◆ **Conscientious:** Women are more efficacious and less vulnerable to political opportunism

Geeta Mukherjee (8 January 1924-4 March 2000) was a veteran political activist, social worker and a four-time MLA from Panskura Purba constituency in West Bengal, from 1967 to 1977. As a Member of Parliament, she was elected seven times from the Panskura constituency, from 1980 to 2000; who led the demand for the legislature of 1/3rd reservation for women in parliamentary elections in India. She also Chaired the Joint Parliamentary Committee (JPC) which examined the 1996 Bill and made seven recommendations.

As the then Government lacked a majority, the Bill could not have been approved.

Earlier Attempts at Reserving Seats for Women:

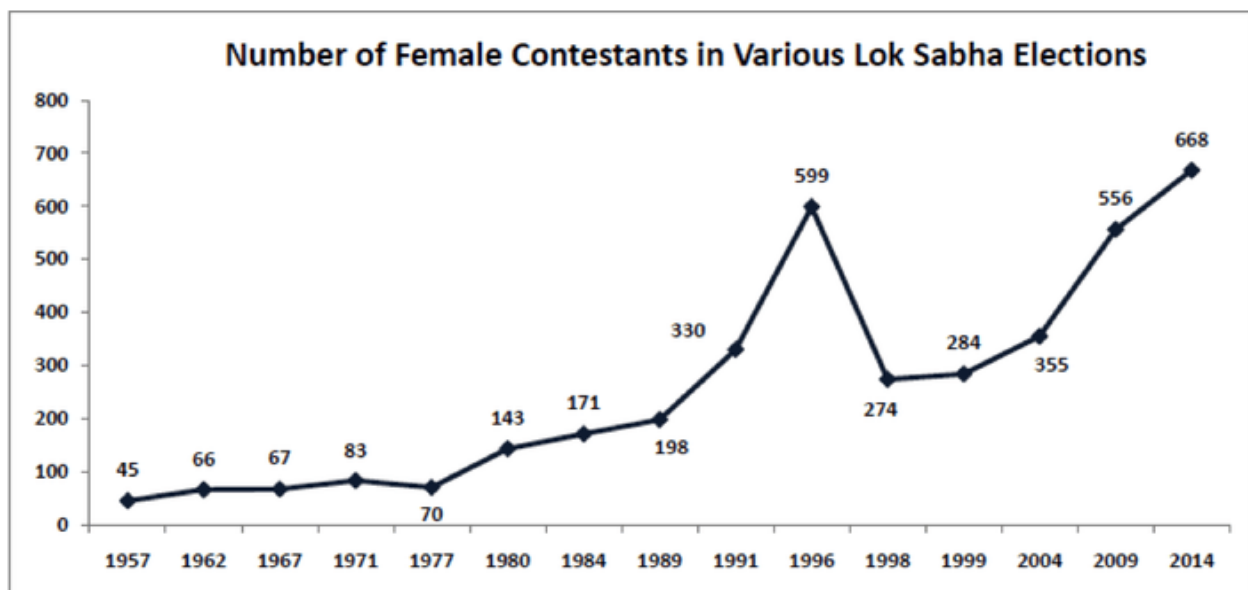
**1996:** First Women Reservation Bill was introduced in the Parliament.

**1998 - 2003:** The government tabled the Bill on 4 occasions but failed.

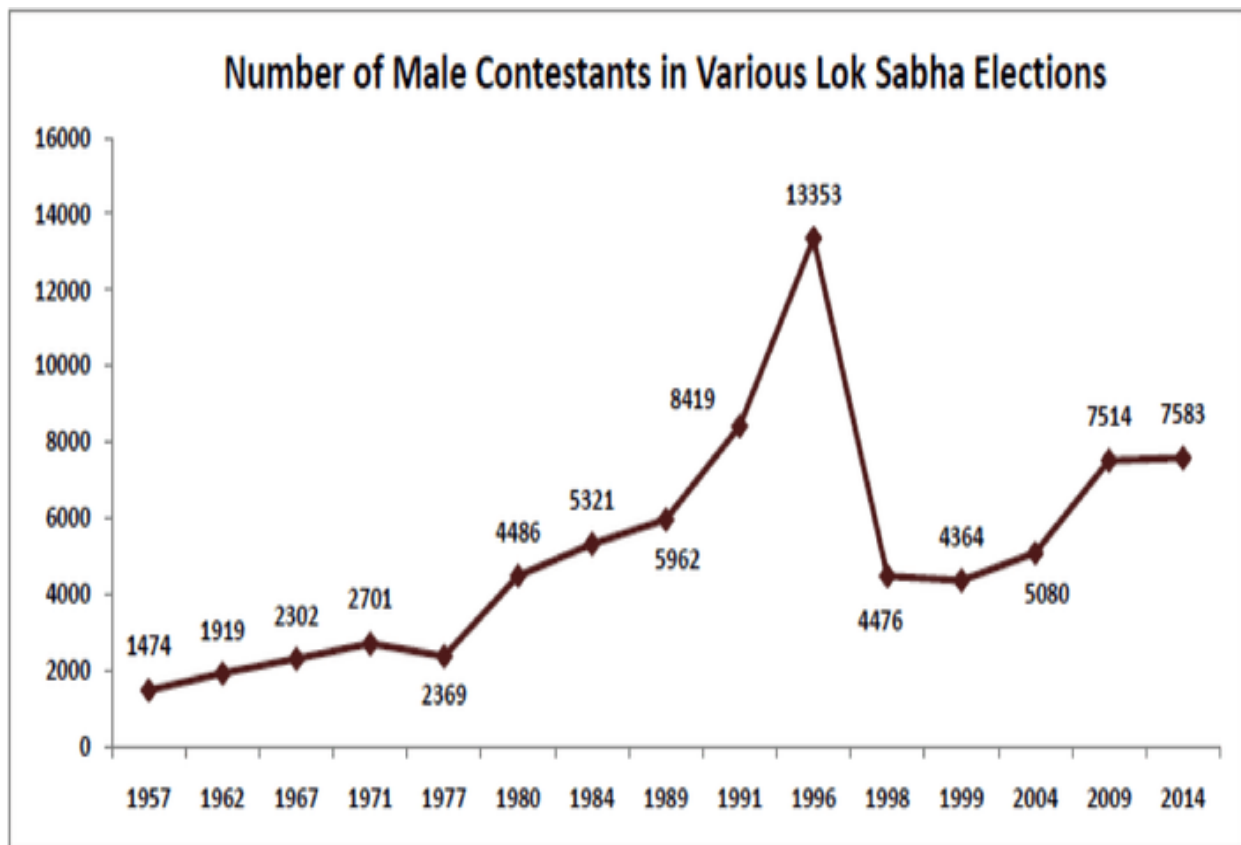
**2009:** The government tabled the bill amid protests.

**2010:** The Union Cabinet passed the Bill and Rajya Sabha passed it.

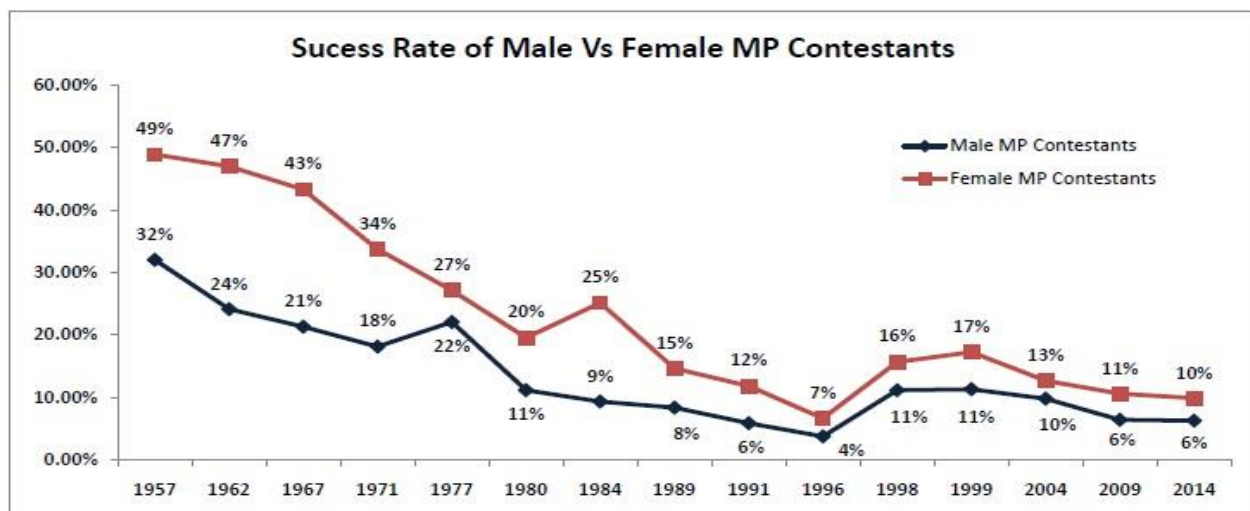
**2014:** The Bill was expected to be tabled in Lok Sabha which did not happen.



Source: Bhanupriya Rao. Available at: <https://factly.in/women-mps-in-lok-sabha-how-have-the-numbers-changed>



Source: Bhanupriya Rao. Available at: <https://factly.in/women-mps-in-lok-sabha-how-have-the-numbers-changed>

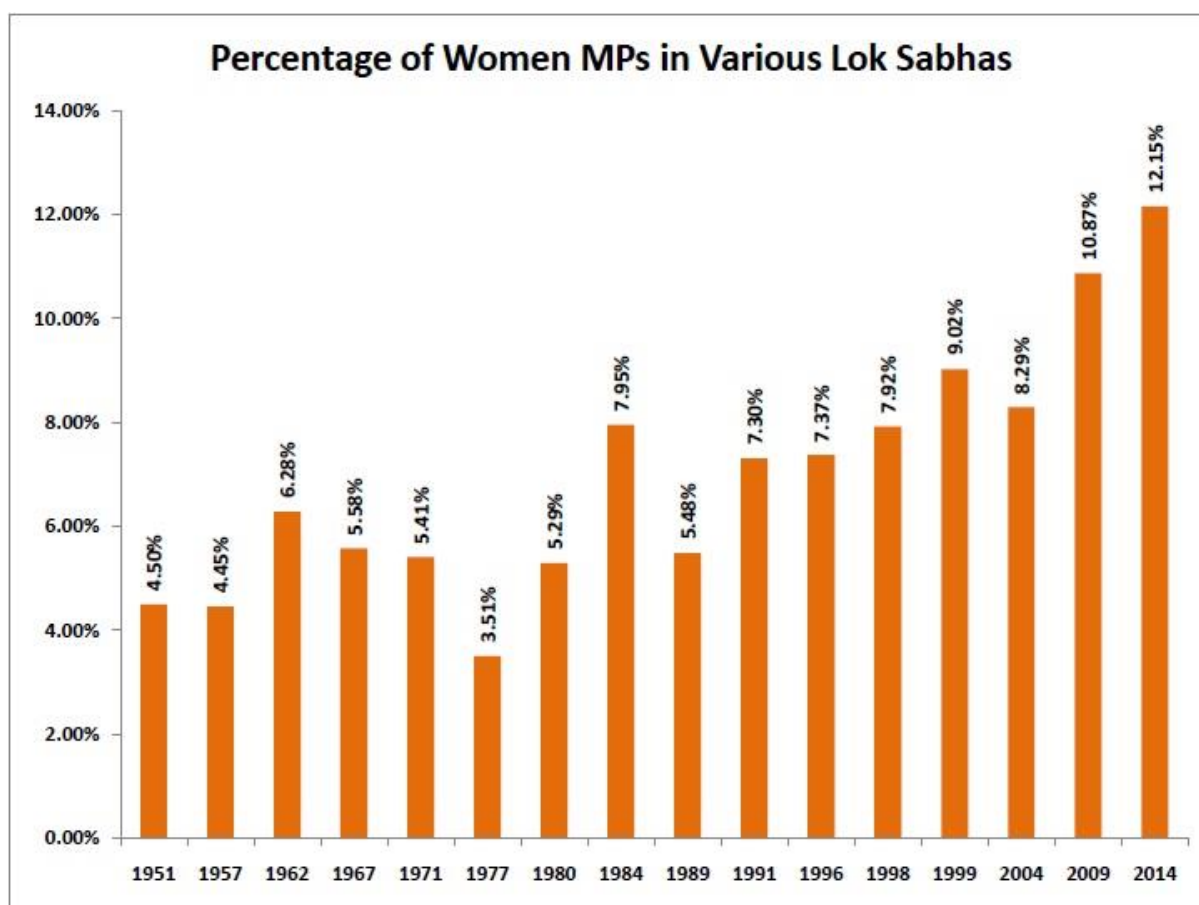


Source: Bhanupriya Rao. Available at: <https://factly.in/women-mps-in-lok-sabha-how-have-the-numbers-changed>

## What were the Hurdles?

### *Presumption of "Win-ability"*

All political parties ignore women foot-soldiers who have dedicated 20-30-40 best years of their lives to party work- mobilisation on issues of regional or national importance, door-to-door campaigning for party rallies, public meetings, demonstrations, jail Bharo, picketing, day-to-day activities of organization, community work, networking, writing press releases-leaflets- pamphlets- circulars, in short from writing to fighting; when selection of candidates for Legislative Assemblies or parliamentary seats are done. What women party workers lack is not 'win-ability' but the backing of money and muscle power! (Patel, 1987).



Source: Bhanupriya Rao. Available at: <https://factly.in/women-mps-in-lok-sabha-how-have-the-numbers-changed>



Women politicians of all national parties were jubilant when the Bill on 33% reservation of seats in the parliament was introduced on 9-3-2010 in Rajya Sabha and also got passed. But Loksabha did not pass it. Not only that, but their own political parties, even when headed by women did not give party tickets to veteran/seasoned women political workers for the 16<sup>th</sup> Lok Sabha Election in 2014. For the 17<sup>th</sup> Lok Sabha election, only All India Trinamul Congress and Biju Janata Dal have given more than 1/3<sup>rd</sup> tickets to their women candidates. The major national parties have not kept their promise as the table below reveals.

Table 1: Distribution of Party Candidature to Men and Women by Political Parties in India for the Lok Sabha Election in 2019

Name of Political Party	Number of Men Candidates	Number of Women Candidates	% of women candidates
All India Trinamul Congress	42	17	40.47 %
Biju Janata Dal	19	7	36.84 %
Rashtriya Janata Dal	17	3	17.64 %
Samajwadi Party	29	5	17.24 %
Indian National Congress	344	47	13.66 %
Amma Makkal Munnetra Kazhagam	23	3	13.04 %
Bharatiya Janata Party	374	45	12.03 %
Telangana Rashtra Samithy	17	2	11.76 %
Nationalist Congress Party	18	2	11.11 %
<i>Dravida Munnetra Kazhagam</i>	20	2	10.00 %
Praja Socialist Party	35	3	08.57 %

Bahujan Samaj Party	12	1	08.33 %
Janata Dal (United)	17	1	05.88 %
<i>All India Anna Dravida Munnetra Kazhagam (AIADMK)</i>	21	1	04.76 %
Shiv Sena	22	1	04.54 %

*Source: Compiled from the press releases of the above-mentioned political parties*

## Toxic Patriarchy and Criminalisation of Politics

Women Activists of Social Movements are politically articulate and have the courage of conviction to fight for their agenda. They command credibility and social respectability for their sincere, Spartan lifestyle and solidarity towards the marginalised sections. But most of them shun electoral politics as they find it too murky and under the control of toxic and misogynistic patriarchs (Dhanmanjari Sathe, Stephen Klasen, Jan Priebe, Mithila Biniwale, 2013). Enormous use of money and muscle power to win elections also makes political life difficult for women. It is in this context that the demand of 33% reservation of seats for women in the Parliament and State Assemblies becomes extremely important for the deepening of democracy for which passage of the Women's Reservation Bill by Parliament and State Legislative Assemblies and at least 1/3rd of reserved seats for women in all internal committees of political parties are imperative (Patel, 1988).

## Reservation for Women in Lower House

It is in this context, that we need to reflect on NSVA.

- **The NSVA has provided for inserting Article 330A into the constitution:** It is borrowed from the provisions of Article 330, which provides for the reservation of seats to SCs/STs in the Lok Sabha. The NSVA provided that reserved seats for women may be allotted by rotation to different constituencies in states or Union Territories. In the seats reserved for SCs/STs, the Bill sought to provide one-third of the seats to be reserved for women on a rotational basis.
- **Reservation for Women in State Legislative Assemblies:** The NSVA introduces Article 332A, which mandates the reservation of seats for women in every state Legislative Assembly. Additionally, one-third of the seats reserved for SCs and



STs must be allocated for women, and one-third of the total seats filled through direct elections to the Legislative Assemblies shall also be reserved for women.

- **Reservation for Women in NCT of Delhi ( New clause in 239AA):** Article 239AA to the constitution grants special status to the Union Territory of Delhi as the national capital with regards to its administrative and legislative functioning. Article 239AA(2)(b) was amended by the NSVA accordingly to add that the laws framed by Parliament shall apply to the National Capital Territory of Delhi.

### **Commencement of Reservation (New Article - 334a)**

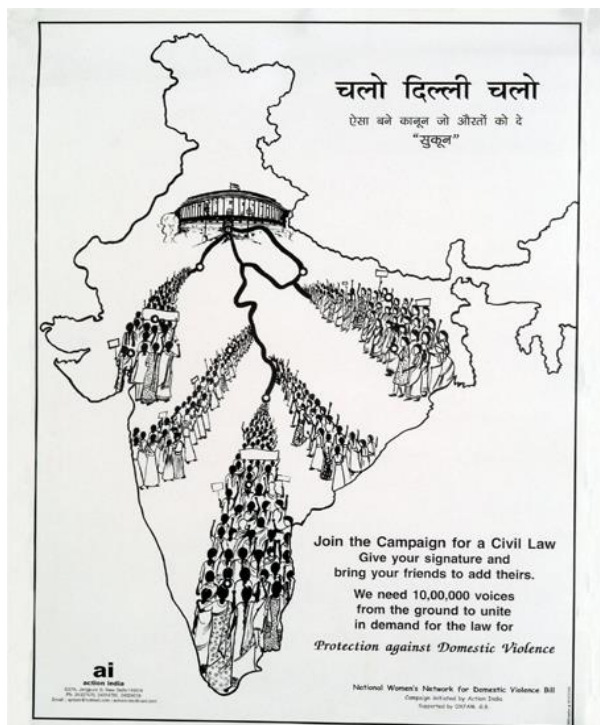
The reservation will be effective after the census conducted after the commencement of this Act is published. Based on the census, delimitation will be undertaken to reserve seats for women. The reservation will be provided for a period of 15 years. However, it shall continue till such date as determined by a law made by Parliament.

**Rotation of Seats:** Seats reserved for women will be rotated after each delimitation, as determined by a law made by Parliament.

### **Criticism of the Women's Movement**

The women's rights movement is unhappy about the fact that NSVA merely reads that it shall come into effect after an exercise of delimitation is undertaken for this purpose after the relevant figures for the first Census taken after the commencement of the NSVA is undertaken. It doesn't specify the cycle of elections from which women will get their due share. Another contestation comes from the feature of the NSVA that **does not provide** women's reservation in the Rajya Sabha and State Legislative Councils. The Rajya Sabha currently has a lower representation of women than the Lok Sabha. Women's organisations aver that representation is an ideal that must be reflected in both the Lower and Upper Houses. They pointed out that NSVA also borrowed from the provisions of Article 334 of the Constitution of India which mandated the parliament to review the provisions of reservation after 70 years of the laws coming into existence. But in the case of the women's reservation, the NSVA provided for the sunset clause of 15 years for the reservation provisions for the women to get reviewed by the parliament.

## Contribution of Women in Political Decision Making and Governance



Women's Leadership in political governance prioritises human development action agenda, with a quota of 33% seats in the parliament and legislative assembly, women's weight in the decision-making will be a critical minimum (ICRW, 2012). Experiences of elected women representatives in the rural and urban local self-government bodies since 1994 have revealed that given the opportunity for collective efforts, they have nurtured their constituencies with efficiency and honesty of purpose (Ghosh, 2002). Their record for executing pulse polio campaign, provisioning of water- electricity- road construction, schools, health centres, and minor irrigation has been recognised in a national-level study by NIRD-UNDP (2002).

To translate the constitutional guarantee of equality into substantive equality, the nation needs to ensure equality of opportunity, equality of treatment, equality of space in public life for nation-building, and, women's quota as affirmative action is a measure in this direction. It is also a win-win formula for the community, region and the nation (IAWS, 2002).

Nurturing women's leadership to compensate for historical neglect and channelising talented and motivated women's ability for community development and human development efforts with a focus on education, skill building, health and combating gender-based violence is the urgent need for gender-inclusive nation-

building efforts. Elected women with mandated power as a result of the 1/3 quota, will also bring transformative change in the cultural milieu in public life (ISST, 2001). It will encourage more participation of women not only in politics but also in the economic, educational, diplomatic, trade and commerce, governance and criminal justice system (Moghe, 2004). On the whole, 33% of women in the upper echelons of political structures will result in more humane policies for children, elderly, persons with disabilities and official recognition of unpaid and paid care work performed for the care of children, elderly and sick members of the family and society (John, 2000). Research by UNDP and NIRD has shown that women-elected representatives have been judicious in implementing gender Responsive Budgeting that is directed at the reduction of the gender gap in health, education, skill, and employment, and at the promotion of women's decision-making power through capacity building (Panchayati Raj Update, 2004). Women's Leadership also results in instituting structures and systems to reduce gender-based violence (Raunak Jahan, 1987).

Given the opportunity, as a collective, women decision-makers have promoted a policy of transformative finances for gender equality. e.g. Campaign started by elected women in Gram Panchayats "Alcohol-free villages in Maharashtra"; forcing political leaders to stop the diversion of wheat for the production of beer in Punjab and distribution of the same wheat through PDS among the poverty groups; using Panchayat funds for the installation of *gobar* gas plant, Kanya Shala, piped water in the homes, toilet blocks for women in the rural and urban community, the building of schools-shelter homes, hostels and health centres for the community (Patel, 1993).

Experiences of Rwanda (65% of parliamentarians are women) and, the European Parliament (40% of parliamentarians are women) have proved that 'critical minimum' representation of women in public institutions brings professionalism, use of decent language, improved time management and check on corrupt practices and criminal activities.

## Conclusion

Women political workers of all political parties have a mind of their own, but the political bosses, while allocating seats to contest elections, do not promote veteran women political activists of their own party. Most of the political parties have used their women workers only as foot soldiers (Patel, 2002). Women's reservation in the parliament legislative Assembly and legislative Councils of the state governments as an affirmative action for the historical injustices faced by women is the only way to ensure a level playing field for women in electoral politics which is dominated by money-mafia-misogyny and muscle power (Thakkar & Gawankar, 2004).

Keeping all these factors into consideration, the women's rights movement concludes that while there is a rider in the NSVA regarding the implementation time

frame, it's essential to recognize that this is a significant step forward. Now, as we look ahead, political parties have no more excuses. The 2024 elections provide a golden opportunity to take decisive action and allocate the seats to contest elections to aspiring women candidates as needed.

Let's continue this journey with hope and determination, knowing that our collective efforts have brought us closer to a more inclusive and equitable political landscape and due share in representative democracy. The gender justice proposed by the Nari Shakti Vandan Adhiniyam in the legislative domain will provide impetus to balanced policy formulation.

*Defying police degradation,*

*Tossing aside tradition,*

*We have come!*

*Dalit, Battered woman, worker, farmer*

*In an army together,*

*We have come!*

*To end dowry, rape, misused authority,*

*To stop wife-beating and cruelty,*

*We have come!*

*To wipe women's suppression,*

*To remove class oppression,*

*To free this humanity-*

*In a Morcha, we have come!*

*From Hill, Dock and Railway Shed,*

*In spite of the owner's threat and dread*

*We have come!*

*Look! Look! You blind exploiter tyrant-*

*Our army has come!*

*To destroy Injustice, our army has come!*

*Originally written in Hindi by Vibhuti Patel on 8-3-1980, translated into English by Dr. Joy Deshmukh.*

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## Special Article

### Community Participation in Rural Healthcare System: *A Narrative Review*

Manoranjan Mohapatra<sup>1</sup>

#### Abstract:

*Community participation is one of the important components of the health system after the alma-ata declaration. To know the role of the community an electronic search strategy was adopted with broad domains like 'community participation', 'community involvement', 'rural health care system', and 'health and family welfare' using j-store and Google accessing Jawaharlal Nehru University, New Delhi library. The purpose of this narrative review is to collect evidence on the role of community participation in addressing health and family welfare. The findings are mixed in nature and the review suggests that community participation can be successful depending on the nature of participation, institutional setting, and socio-economic and political context.*

**Keywords:** community participation, community involvement, rural health care system, health structure

#### Introduction

Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity and it is the basic right of every human being to enjoy the highest level of health irrespective of their economic-social-political status, as per the World Health Organization. A long and healthy life (say life expectancy at birth) is one of the important factors in assessing the human development index. Understanding the importance of health in the development process, India adopted various policies, programs, and strategies and most importantly developed a

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<sup>1</sup> Research Investigator, Population Research Centre, Utkal University, Bhubaneswar  
Email: manoranjanmohapatra.jnu@gmail.com

healthcare system (say structure) to improve the health outcomes of its people. According to the World Health Organization, the health system comprises different components like infrastructures, human resources, information, technologies and communication facilities, supply of medicine, funding, strong health plans and evidence-based policies, quality assurance mechanisms, legislation, governance etc.

Before knowing details on the health system, it is necessary to know the Indian centuries-old health system because India has a rich legacy of medical and health sciences. Ayurveda which means ‘science of life’ originated from the Vedas (Rig Veda, Yajur Veda, Sam Veda, and Atharva Veda, commonly known as the compilation of knowledge), the backbone of Indian civilization, gives two important medicinal and surgical contributions, as Charaka Samhita and Sushruta Samhita, bear the testimony of the ancient tradition of India’s scientific healthcare with holistic manner, as per national health policy 1983. Besides, Ayurveda has eight disciplines, in practice, known as Astanga-Hridaya/Ayurveda (Jaiswal & Williams, 2017). The basic difference between Ayurveda and others is that Ayurveda believes in practice and has its own philosophical framework. However, various other systems of medicine (specifically Unani, Homeopathic, and Allopathic) have evolved, practiced, and continued, though the allopathic system of medicine is ahead of time, with the intrusion of foreign influences (both in medieval and modern times) and assimilation of different cultures in India (Ravishankar & Shukla, 2007). One important observation is that different medicinal approaches in India are attached to different political patronage and culture.

The foundation of the health structure of modern India came into existence after the recommendation of the Health Survey and Development Committee popularly known as the Bhore Committee (1946), with a goal to access the availability of healthcare services to all citizens irrespective of their ability to pay with a special emphasize on a rural vulnerable section of the population through setting primary health centers (PHCs), according to Oxfam India’s Inequality report 2021: India’s unequal healthcare story. Again, both the Mudaliar committee (1962) and Chada committee (1964) recommended promotive, preventive, and curative healthcare services with a provision of one basic health worker in each PHC.

The National Health Policy 1983 also emphasized the need for comprehensive primary healthcare services, especially in remote parts of India, with a focus on health for all approaches. Besides, the policy focused on the all-round development of the community through community participation. Again, India introduced national health policies in 2002 and 2017 with some modifications based on ground reality but the concept of awareness through community is always in priority. Later, the government of India modified the basic healthcare delivery system and launched the historical National Rural Health Mission (NRHM) in 2005, in view to safeguard the quality of life of people in India. The mission adopts a broader concept of health



which includes the determinants of quality health like nutrition, sanitation, hygiene, and safe drinking water, and gives priority to the Indian systems of medicine to facilitate health care. Besides, the mission focuses on more public expenditure, unification of organizational structures, regional balance in health infrastructure, maximum utilization of health manpower, decentralization of health programs, community participation, management of health programs, and converting community health centers into functional hospitals in each block of the country.

After the continuation of NRHM, again to improve the quality of healthcare, the concept of equity and financial protection came into the limelight which brought a new concept named ‘universal health coverage’ (UHC) to the Indian healthcare system and it was implemented after the recommendation of planning commission of India (currently known as Niti Aayog) in October 2010. Expenditure on health pushed nearly 55 million people into poverty in a single year and 38 million of them fell below the poverty line due to expenditure on medicines in India, according to a study by the Public Health Foundation of India, reported by Rema Nagarajan in 2018. According to WHO, UHC is a health system that comprises essential and quality health services from health promotion to prevention, treatment, rehabilitation, and palliative care and every individual and community has access to it without any financial hardships.

The latest national health policy 2017, in line with sustainable development goal (SDG) target 3.8, also envisages attaining the highest level of health and well-being for all ages through universal health coverage and also focuses on health as an integral part of development. Many countries like Germany and Belgium have achieved the UHC where nearly 99 percent of their population are protected against major and minor health risks, no doubt time and resources have played an important role. Interestingly, even middle-income countries like Thailand and Mexico also achieve it whereas the United States of America is not able to achieve the UHC (Ikbal F, Ghosh R and Bhide P, 2022).

The message is clear that it is not necessary to be rich to achieve UHC. However, the importance of finance cannot be ignored and most importantly political will is the necessary foundation to achieve UHC. Multiple literatures focus on the success of UHC through the public healthcare system. In the context of India, both the center and state combined spend only 1.25 percent of the GDP which is the lowest among the BRICS countries, as per one report by Oxfam 2021. In Oxfam’s Commitment to Reducing Report 2020, India ranks 154th in health spending, fifth from the bottom. So it is necessary, that India should increase its budget allocation to achieve UHC, even National Health Policy 2017 also advocates increasing the public health expenditure to 2.5% of the GDP by 2025.

Gradually the healthcare system focuses more on government-funded health insurance schemes rather than improving the public-funded health care system in India. The shift of focus from conventional health programs to health insurance was

more visible after 2000. However, this insurance concept was not new; it could be traced back to just post-independence era and the first two publicly funded insurance schemes of India were the employees' state insurance scheme (1952) and the central government health scheme (1954). Later, the universal health insurance scheme (2003) for below-poverty-line families and Aam Admi Bima Yojana (2007) for rural landless households were initiated. However, most of these schemes were not able to achieve the goals as targeted due to issues like implementation and the design of the schemes. However, learning from mistakes, a new scheme Rashtriya Swasthya Bima Yojna (RSBY) for the poor came into existence in 2008 and finally, Ayushman Bharat-Pradhan Mantri Jana Arogya Yojana (PM-JAY), the first step towards achieving UHC, was launched in 2018, subsuming both RSBY and senior citizen health insurance scheme, with an objective to provide health insurance of 5 lakh per year to 10 million vulnerable families (include roughly 500 million India, i.e. 40% Indian population) on the basis of socio-economic caste census of 2011(Ikbal F, Ghosh R and Bhinde P, 2022).

Though there is the provision of both state and center's financial contribution to PM-JAY, however many states have their own state-run insurance program and also health financing system. While implementing an insurance program, both center and state-level functionaries should focus on both non-beneficiaries availing insurance benefits and at the same time should also focus on the quality treatment of the people., without improving public healthcare standards as per SDG, mere health protection through insurance by the private healthcare system may increase the cost due to the profit motive of the private healthcare system. There are also various studies highlighting that non-beneficiaries are taking benefits from public sponsored programs. So a responsible state should understand this and take necessary action according to it.

### **Structure of rural healthcare system**

The healthcare system addresses the health needs of people through both public and private healthcare systems in both rural and urban areas. However, the private healthcare system which is different from private providers, mostly caters to services in urban areas and here the literature has focused on the rural part because the accessibility and affordability of proper healthcare in rural areas is still a matter of concern as compared to urban areas, according to economic survey 2018-19. However, the policy level interventions should go beyond these mere comparisons like rural vs urban, and healthcare should be available, accessible, and affordable irrespective of an individual's background.

The public rural healthcare system delivers services through three levels generally known as primary, secondary, and tertiary level. Sub-center (SC) is the first

peripheral contact point between the community and the public health care system whereas primary health center (PHC) is the first contact point between the village community and the medical officer. Both SCs and PHCs are coming under the primary level. The population norm for the sub-center in the plain area is 5000 and for hilly or tribal areas it is 3000. The population norm for primary health centers is 30,000 and 20,000 for plain areas and hilly areas respectively. The primary health center acts as the referral unit of 4-6 sub-centers. Community health center comes under the secondary level and it is the referral unit for PHCs. The norm for community health centers is 120000 and 80000 for the plain area and hilly area respectively. Community Health Centre is established and maintained by the state governments. The tertiary level of the healthcare system generally performs at the district level and state level like district hospitals, medical colleges, etc.

### **Importance of Community Participation and Community Participatory Structure in Healthcare System**

The health sector has improved immensely during the last 75 years in India. It has reached most of the corners too. However, it is evident from various rounds of NFHS-level data, that health inequalities exist across different population groups and also vary according to geographical locations. Health care is still not accessible to remote areas of society. The needy and vulnerable sections, especially the economically poor, still lack proper health care. When talking about healthcare facilities, it is often discussed curative part but the preventive part is more important which not only reduces the risk of diseases but also helps in preventing diseases studies show that the level of awareness is one of the strategies for the prevention of diseases. So to understand awareness, it is imperative to know the concept of community because ultimately any disease-preventive communications will be designed by the policy makers for the community and implemented by the community (say involvement of community leaders).

Though community participation has great importance in healthcare historically recently the concept of community participation again came to limelight due to COVID-19. So it is needless to say that community participation is one of the components of the health system. India has evidence of the participation of village committees in health structure through the decentralized model of governance. After a suggestion of the Bhore Committee for the formation of village health committees to improve community participation, the committees were implemented to revive primary health care in the 1980s (Srivastava A., et al. 2016). Later, the National Rural Health Mission (NRHM) with more emphasis on decentralized planning formed a village health and sanitation committee (VHSC) at each revenue village, a simple and effective management structure at the village level, to improve the community

participation at the village level having representatives from the village, especially health workers (ASHA, AWW, ANM) and members of community-level organizations like elected representatives from panchayati raj institutes, self-help groups, primary teacher association or mother teacher association, non-governmental organizations, youth club, president or secretary of Panipanchayat, user group representative and the socially marginalized group and an amount of Indian National Rupees (INR) 10,000 was provided to committee as untied fund annually to undertake planned activities on health, sanitation, and nutrition in the village (Mohapatra, 2018).

### **Understanding The Concept of Community Participation**

Before going into the concept of community participation it is important to know the exact meanings of community and participation. Though the community is poorly defined in the literature still the definition is necessary as it is central to the issue. Mostly community is defined as a socio-spatial entity. Community is defined as a geographical entity and a sense on the basis of shared interests, values, concerns, and identity. Community may not always be homogeneous but rather heterogeneous entities (David et al., 1998). According to the United Nations, it is the lowest level of aggregation at which people organize for a common effort. Community is a word that has many meanings and uses. Some commonly used meanings of community are listed here; a. A geographical locality where people live and the inhabitants objectively have and subjectively feel a social and functional solidarity, b. A population group with similar characteristics, c. People are drawn together by concerns for which they feel allegiance for only one aspect of their new and more complex lives or as a concern that people share in common. A community can be said a target group also. Though there is an enormous amount of literature on participation still the concept has popularity but without clarity (Cohen and Uphoff, 1980).

Participation means active or passive community involvement. The aim of participation is “to achieve a special kind of power which belongs to the oppressed and exploited classes and groups and their organizations and the defense of their just interests to enable them to advance towards shared goals of social change within a participatory political system” (Borda, 1988). United Nations Economic and Social Council States (UNESCS) defined that participation needs the voluntary and democratic involvement of the people. According to Oakley (1989), participation means, to sensitize the people and thus to increase the receptivity and ability of rural people to respond to development programs as well as to encourage local initiatives (Oakley, 1989).

Nowadays the word participation is used for mobilization and empowerment. Community mobilization is defined as a capacity-building process through which community individuals, groups, or organizations plan, carry out, and evaluate activities on a participatory and sustained basis to improve their health and other

needs, either on their own initiative or stimulated by others. Empowerment is defined as the process and outcome of being powerless through gaining information, skills, and confidence and thus control over decisions about their own lives and can take place on an individual, organizational, and community level (Rosato et al., 2008). Terms such as ‘community involvement’, ‘community development’, and ‘community mobilization’ could all describe the collective involvement of local people in assessing health needs and implementing programs.

More recently, the terms ‘community capacity building’ and ‘community engagement’ have gained popularity and both of these processes involve community participation (Preston et al., 2010). The majority of studies highlight there is no standard definition of community participation and it is a structured word. It is only situation-specific, unpredictable, and not generalizable (Rifkin, 2014). Still, we try to define the concept of community participation in health.

Traditionally there were two perspectives in defining community participation in health. One is a utilitarian model and the other is an empowerment model. Participation is defined as a ‘means’ in the utilitarian model and as an ‘end’ in the empowerment model. In the utilitarian model community resources are used to deliver health care facilities whereas in the empowerment model, local communities are taking responsibility for healthcare delivery (Morgan, 2001). Community participation was defined as “an educational and empowering process in which people, in partnership with those able to assist them, identify problems and needs and increasingly assume responsibility themselves to plan, manage, control and assess the collective actions that are proved necessary” (Askew et al., 1986).

Community participation is a process where members of the community, either individually or collectively with different levels of commitment first take responsibility for health care delivery then plan and execute it by creating or maintaining organizations in support of these efforts, and finally evaluate the effects on an ongoing basis. Basically, it is a strategy that creates the sense of solving people’s problems through sincere reflection and collective action (David et al., 1998). Community participation is a social process whereby specific groups with shared needs living in a defined geographic area actively pursue the identification of their needs, make decisions, and establish mechanisms to meet these needs (Rifkin et al., 1988).

### **Understanding the concept through historical lenses**

Community participation in health programs is not a new concept rather its history can be traced back to the aftermath of the world war-2. There are two trends visible that laid emphasis on community participation. At the advent of decolonization, the inadequacies of the Western medical system were dramatically exposed (Rifkin,

1990). The new nations could neither afford the high costs nor have proper infrastructure. To deal with this health crisis, the emphasis was placed on preventive, decentralized, community care based on epidemiological priorities rather than Western medical services and new technologies. Health service delivery was viewed as social policy rather than technological development. Another trend recognized that public health policy was not only for curing disease but for the country's general development. Health was recognized as an investment in men (Myrdal and King, 1972). The sense of health services was now changed from mere medical profession to economic development planning.

Thus the debates of 'basic needs', 'social justice', and 'people's participation' started in health care. The development of these trends culminated in the concept of Primary Health Care (PHC). Community participation gained momentum in the global health policy arena as the member countries of WHO accepted primary health care as their official policy in the Alma Ata Declaration in 1978. The declaration stated that health is a human right that the inequalities in existing health status are 'politically, socially and economically unacceptable' and that essential health care must be made 'accessible to individuals and families in the community through their full participation' (WHO, 1978).

The declaration started giving importance to social justice and linked it to equity and participation as the principles of primary health care. With letter and spirit, many countries created a cadre of community health workers (CHW) to serve poor rural people where the majority of the world's population lived in response to the call for community participation in the Alma Ata declaration. Community members like China's 'Barefoot Doctors' were trained to serve basic health care and referrals in the health centers.

The participation would lower the costs of health care because they were from the community and were supported by the community. In theory, the community members seemed as 'change agents' and had an impact on health behaviors and empowering the communities to make joint decisions about health care (Werner, 1977). Answering the call for community participation of Alma Ata, community health workers became synonymous with primary health care (Mburu, 1994). Gradually, the argument for the role of community people leads towards a more broad-based approach like 'participation' and 'empowerment' (WHO, 1986).

The Bamako Initiative stressed upon decentralization of health services with a sharp focus on accountability and governance from the center to peripheral units (Mehrotra and Jarret, 2002). The discussion of cost-effectiveness and sustainability came to limelight after the financial crises of the 1980s (Rifkin, 2014). The importance of social determinants of health, decision-making process, and power structure was highlighted in the World Health Organization Report of the Commission on the Social Determinants of Health (WHO, 2008a) and World Report on Primary

Health Care (WHO, 2008b). Finally, all these developments brought issues of empowerment, capacity building of local people, financing and program sustainability into the dialogue (Rifkin, 2014). There is a debate on how community participation is to be achieved in health care services. Planners have chosen two different approaches of community participation in health programs. The first approach is dominated by planners the most. They decide the various objectives of the health program and convince the people of the community to actively accept these objectives. This frame of reference is called a target-oriented frame. The roots can be traced back to the Western scientific tradition and the biomedical model of health and illness by the end of the nineteenth century (Macdonald, 1993).

According to this frame of reference, improvements in health are due to a result of discoveries in science and technology. The only motto of community participation is to improve the health status of the people. This frame of reference is also called the ‘top-down’ approach. The second approach is that community people are to make decisions about resource allocations and priorities. The unequal distribution of resources is the cause of poor health care and health status. The more equitable distribution of resources can be achieved through structural changes at the local level. Democratically, the structural changes can happen. This frame of reference addresses health improvements through the political context. The second frame of reference is called the empowerment frame. The root of the empowerment frame is traced back to the post-war and ex-colonial periods (Morgan, 1993). This frame of reference is also called the ‘bottom-up’ approach.

#### Literature on community participation and healthcare system

After understanding in detail the concept and structure of community participation now the author tries to collect the available literature on the role of community participation in health and family welfare which was searched with an electronic search strategy with broad domains of community participation, community involvement, rural healthcare services, health and family welfare in 2014-15 using both J-Store and Google accessing the library of Jawaharlal Nehru University, New Delhi. The works of literature are mostly from South Asia; however, studies on other than South Asia regions are also mentioned. The overall purpose of the review is to examine the role of community participation in addressing health and family welfare.

A study using the cluster randomized controlled trial (RCT) in Ethiopia found that proper mobilization of women’s group has effectively treated malaria at home and reduced 40 percent of the under-five mortality (Kidane and Morrow, 2000). A study in the Makwanpur district of Nepal found that community mobilization by women’s groups has reduced by 30 percent the neo-natal mortality rate as well as significantly lowered maternal mortalities (Manandhar et al. 2004). Using before and after analysis of a small population in Bolivia under the Warmi program found that due to community involvement, perinatal mortality has been reduced by 62 percent

(Rourke et al., 1998). The intervention of lady health workers and traditional birth attendants through proper health education and training has shown a decline of 35 percent in the perinatal mortality rate and a decline of 28 percent in the neonatal mortality rate in the intervention villages compared to baseline rates in Hala in Pakistan (Bhutta, 2008). The study found that the neonatal mortality rate was reduced by 34 percent in the final six months of the trial compared with the comparison group, with the help of trained female community workers who are providing a home care package including assessment of newborn infants on the first, third and seventh day after birth and treatment of sick neonates in Sylhet district of Bangladesh (Baqui et al., 2008).

The experiences from different pilot programs suggest that community participation can bring substantial reductions in mortality and improve the health status of newborn infants, children and mothers (Rosato et al., 2008). It is also observed that community leadership with transparency, accountability and decentralization will improve mutual trust and respect and largely contribute to service outcomes (Rosato et al., 2008, O'Meara et al., 2007, Broussard et al., 2003 and Coady, 2009).

It is found that community development has had an impact on the improvements in health indicators in recent decades but only a few small projects (as with Chakaria Community Health Project, Comprehensive Rural Health Project, Jamkhed, etc), have established the causal link (Hossain et al., 2004). The evolution of community development projects in South Asia has led to a drastic improvement not only in infant survival but also in other health development indicators. The shift of focus from a hospital-based system to a community-based healthcare system during the past decades is the success of public health. Community involvement may have a positive impact on the success of project development and implementation (Jewkes and Murcott, 1998). Participation may directly affect individuals by changing attitudes and actions towards the causes of ill health also promote a sense of responsibility and increases personal confidence and self-esteem. Involvement in the policy process may decrease alienation among socially excluded groups and change the focus of power relationships with the professional decision-makers. There is a strong relationship between community participation and improved health outcomes (Abad-Franch et al., 2011).

Effective participation helped in the control of diseases in Chagas but still further evidence was necessary. Effective involvement of all stakeholders would foster true empowerment and lead to improved health and living standards. The role of women's groups are the most cost-effective and realistic way to minimize maternal deaths and improve birth outcomes rapidly (Rifkin and Pridmore, 2001 Prost et al., 2013). Community participation activities work as the most successful way to implement primary health care for achieving the goals of health for all (Roy and



Sharma, 1986). Increasing the role of community participation in rural primary health care service delivery raises the likelihood of genuine community health sector partnerships and more responsive health services for rural communities (Preston et al., 2010). Despite many challenges, community participation has contributed to improvements in health at the local level, particularly in poor communities (Rifkin, 2009). The National Rural Health Alliance highlighted that community participation in rural health services is unquestioned. Participation by individuals, communities, and special groups is necessary for successful programs and services to maintain and improve their health. The need for social and physical capacity for planning and implementing local programs is also necessary for communities to improve their health.

There is also small but substantial evidence of the association between community participation and improved health outcomes in Australia (Bath and Wakerman, 2013). They suggested policymakers should strengthen policy and funding support for participatory mechanisms in primary health care. Community participation in health services increases local knowledge and skills promotes a sense of ownership in local health service, and strengthens local relationships and networks (Strasser et al., 1999). Community participation not only develops the social capital within the community but also incorporates the memory of health service which facilitates maintenance and continuity of services transcending idiosyncrasies and changes of health care providers. It is observed that community participation has played a key role in addressing communicable diseases like malaria in low and middle-income countries. However, the lack of proper definitions of ‘community’ and ‘participation’ questions the exact nature of community participation (Atkinson et al., 2011).

The Gothenburg consensus paper on Health Impact Assessments highlighted that community participation is the core ideal in almost all the contemporary major national and international declarations on health but little empirical work has explored the utility of participation in attaining objectives of the assessments. It is found that there is little evidence of the link between community participation and improvements in rural health outcomes. However, lack of evidence does not necessarily mean lack of effect (Preston et al., 2010). They stressed that community participation should be understood in terms of the expectations of time, resources, tools to measure and health development. They highlighted the role of community participation in the context of health planning, resource allocation and service delivery (Mubyazi and Hutton, 2012). Community participation has no common approach in the program due to lack of a standard definition of community participation. There is little evidence of a direct link between the participatory approach and a noteworthy impact on health and social outcomes (Smith et al., 2009). Community participation in health is a just slogan in rural areas of Zimbabwe and the promotion of community participation in health programs is time-consuming

and needs a lot of patience (Tumwine, 1989). The health workers and donor agencies should not be paternalistic. Proper training, education, and necessary skills can improve effective community participation in Sri Lanka (de Silva, 1975). It is observed that community participation results in higher community satisfaction with better health services and outcomes but evidences to support this assertion is limited (Kilpatrick, 2009).

It is noted that though community participation can be used in designing rural primary healthcare services, the outcome depends upon community receptiveness and varies from innovative models to passive protest (Farmer and Nimegeer, 2014). The design of acceptable local services depends on how community members are engaged. The failure of community participation in healthcare facilities is also observed (Rifkin, 1996). The reason for failure is that community participation was taken to be a magic bullet to solve problems rooted both in health and political power. He suggested the use of different paradigms where community participation should take a more eclectic approach as an iterative learning process. Treating community participation in this way will enable more realistic expectations.

It is also found that participation is time-consuming because communities often question the value of investing time and effort in a project (Glicken, 2000 Cornwall and Jewkes, 1995). Local people are often too busy in their daily business and unable to be involved in participatory activities and the legitimacy of those who participate is unclear. Communities are often heterogeneous by tensions and conflicts where certain vulnerable groups may not be willing or even unable to participate. Participation is intuitively appealing but it is clear that participatory approaches do not always run smoothly on health impact assessments (Parry and Wright, 2003). Nowadays a multitude of factors have played a role in improving health but the challenge remains to find definite answers regarding the shares between interventions and the process of implementation (influence of community development or empowerment) in improving the health of communities and at what level and scale.

Community participation should be used in the process of implementation of health programs for sustaining outcomes rather than as an intervention to improve health outcomes (Rifkin, 2014). Community participation as an intervention gathers people to think talk and act on health problems and services (Marston et al., 2013). The contribution of community participation to improve health depends on a variety of factors including system and socio-cultural factors. The contribution of health facility committees pointed out the lack of a standard definition of community and participation (McCoy et al., 2012). The outcomes not only depend on the process but also on the interaction between the intervention and the context.

The accountability of the community depends on the village health committee and ward committee, health center, and women's groups in low and middle-income countries (Molyneux et al., 2012). The success of the committee's performance

depends upon the selection process, the relationship between committee members, different groups, health workers, and managers, and the support of resources by local and national governments.

A comparative analysis of seven case studies of community participation projects implemented by Non-Governmental Family Planning Associations (FPAs) of India, Bangladesh, Pakistan, Sri Lanka, and Nepal found that despite the policy rhetoric, seeking greater community involvement and self-reliance in program implementation, FPAs most commonly use participation as a means to generate new demand for services by presenting family planning in a manner that is acceptable and appropriate to the communities involved (Askew, 1989). The committed and enthusiastic local person along with the doctor can mobilize the community members and gradually women participate in different income-generating activities and also steadily improve family planning use within the community in Bangladesh (Askew et al., 1987). Community participation strengthens the role of community development workers who provide service and organize activities in Nepal (Askew, 1988). Family planning was integrated with a variety of areas like health, agriculture and community development services.

A study in the tribal area of Madhya Pradesh of India found that family planning is integrated with many developmental programs and community participation through collective action is the major strength (Khan and Gupta, 1998a). The trained young community volunteers, basically female, act as resource persons on matters of family planning and healthcare in Sri Lanka. The local committee manages all the activities of these volunteers and together they mobilize the community participation in family health activities (De Silva, 1988). Community-managed family welfare centers provide Maternal and Child Health (MCH) care and family planning services in Pakistan (Ayub and Azam, 1988). The centers are managed by a committee of local leaders, basically male, to enhance the socio-cultural acceptability of family planning. An overview of the nature and extent of community participation in the national programs of Bangladesh, China, the Republic of Korea, the Philippines, and Thailand found a similar pattern of community participation in all the countries (Askew and Khan, 1990).

The study highlighted that the individuals of the community, often volunteers are providing the information and services and motivating the potential users. Community leaders are also encouraged to actively promote and support the program. The contribution of resources by community members is very little. Community members are not involved in the decision-making process related to program beyond identifying the community based service deliverers. The active community participation in planning and implementing program activities varies from limited to nonexistent. This limited form of participation was due to the bureaucratic organization system in national family planning programs. Rifkin (1986) highlighted

the role of community participation in health programs and pointed out that new attitudes can develop among the planners, agencies and community people to deliver health services and the expectation of all groups be also taken into account (Rifkin SB, 1986). The programs should be run by the community people rather than planners. The planners and agencies should act as resources, not directors. If attitudes and expectations are not taken seriously then health care becomes once again a bottomless pit of resource absorption and unmet services. The family planning program of Indonesia is the most effective in developing countries in promoting family planning services and contributing to fertility transition (Shiffman, 2002). This is due to effective community participation and the credit goes to the network of village family planning groups. The groups are basically female volunteers. They distribute family planning methods in remote areas of the country and act as agents of family planning motivation. Civil society organizations and community-based institutions such as panchayats and self-help groups should work creatively to mobilize communities and generate demand for contraception and other reproductive health services (Pachauri, 2009).

Accredited Social Health Activists (ASHAs), Anganwadi Workers (AWWs), and Self Help Groups (SHGs) should be more active at the grassroots level identify the groups with need, and give them proper information and services related to health and family welfare in India (Mohapatra, 2015). Community participation in the family planning program in Uttar Pradesh is very indifferent and passive (Bang, 1986). The feudal structure, elitist politics, lack of political will, and finally absence of political structure and process at the grassroots level (no grassroots election since 1971) in Uttar Pradesh severely limit the community participation in the family planning program. He also noticed that besides the village pradhans, all other leaders like caste leaders, teachers, and private medical practitioners are not asked to participate in the family planning program. Though village health committees are to be formed in the villages still many villages have no committee. Committees are completely inactive and their existence is only on paper. The reasons are as follows. These committees are formed by the pradhan and the panchayatsevak without any educational and participatory processes. The committee has no power or money at its disposal. The government machinery has a disrespectful and stereotypical attitude towards the committees.

## Conclusion

The findings on the impact of community participation on both health and family welfare are mixed in nature. While some studies found that it has been useful, others observed that it has not really functioned well. It appears that community participation cannot be considered as a magic treatment however the success

probably depends on the nature of participation, the institutional setting and socio-economic and political context.

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## Special Article

### Sustainable Tourism At Lonar Lake In Maharashtra: A Geopark Approach

Archana Mishra<sup>1</sup> and Rekha Maitra<sup>2</sup>

#### Abstract

*The Lonar area, in the state of Maharashtra, India, is an underappreciated geo-heritage site with distinctive wildlife and biodiversity, a rich cultural legacy, and well-known geological characteristics. UNESCO, since 2015, recognized the ‘Global Geoparks’ initiative which promotes sustainable development via community participation. It has been applied successfully in 48 countries and it has been an instrument of local development, education, conservation, and sustainable tourism in such geo-site areas. Geoparks preserve unique geological heritage, and biodiversity and boost the local economy by encouraging sustainable livelihoods, geo-tourism, and heritage discouraging harmful behaviours that cause damage to the unique geological character and heritage of the region. Their bottom-up strategy, which involves local people and combines sustainable development and conservation, is gaining popularity. In India, there is no such geopark yet and Lonar could be a potential area where not only geo-tourism could flourish but a Geo Park strategy could boost tourism revenue, jobs, and opportunities for the local community. This paper examines the strengths and opportunities in the Lonar region from a geo-tourism point of view and reinforces a sustainable tourism approach by adopting UNESCO fostered Geo Park approach to Tourism Development in the Lonar Region.*

**Keywords:** Geo Park, tourism, Sustainability, biodiversity, conservation, ecotourism, local community, smart tourism.

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<sup>1</sup> Assistant Professor, Jai Hind College (Autonomous), Mumbai  
Email: archana.mishra@jaihindcollege.edu.in

<sup>2</sup> PGT-Tourism, GD Goenka School, East Delhi  
Email: rekhavmaitra@gmail.com

## Introduction

Lonar Lake is a unique and fascinating geological site located in Maharashtra, India. The lake's creation by a meteor impact about 52,000 years ago has historical and unique scientific significance. The antiquity of this landscape is referred to in the ancient Puranas (350 and 750 CE) and the Ain-i-Akbari by Abul Fazal (1600 CE). Lonar geo site is seen as a co-occurrence of historical legacy and spiritual heritage with twenty-seven temples, three monuments, seven temple tanks, and three inscriptions found within the Crater (Ramsar Information sheet, 2020).

Scientists claim that the lake is situated in the only crater on Earth created by a high-velocity impact on basaltic rock, namely a meteor strike that occurred at an estimated speed of 90,000 km/h. The lake now occupies 77.69 hectares within the Lonar Protected Area, which is 3.66 square kilometers. (Marpakwar, 2023). By the thermoluminescence analysis, the age of the lake is estimated as being 52000 years old with a 6000-year correction on either side, whereas the Argon dating system revealed a crater formed around 570000 years ago. (Dey, 2019).

Maharashtra Government has categorized Lonar as an 'A' Grade Tourist Place, which receives funding from either international sources or the Government. The Committee for the Development of Tourism began in 1999 and 2011. Lonar receives steady science enthusiasts, wildlife lovers, and spiritual and ecotourists around the year. The connectivity to Lonar is through Aurangabad by cab or bus, which is a three-hour drive, it has better connectivity by rail, air, and roads. The lake's impact on local communities and their cultural practices needs to be explored as it has the potential and scope for building economic opportunities. Lonar Lake has been studied by the Smithsonian Institution, the United States Geographic Survey in America, the Geological Society of India, and India's Physical Research Laboratory. But from the Geo Park or Geo-tourism perspective, it has been less explored.

The methodology of the paper consists of identification, screening, eligibility, and inclusion of articles related to the research topic and a review of the literature in two parts- first, pertaining to the geological site Lonar and its features, its ecological uniqueness, and tourism potential and the challenges being faced, currently and secondly a review of the concepts and successful sustainable strategies such as the UNESCO concept of a 'Geopark' and geo-tourism in such areas of geological heritage. A qualitative analysis was undertaken to explore the application of the Geo Park strategy at Lonar and opportunities interlinking Geo Park strategy along with other kinds of tourism possibilities that could lead to better economic opportunities for local community, lead to better conservation of geological and cultural heritage in the Lonar region.

## Literature Review

A literature review on Lonar shows papers discussing Lonar as a geo site and a large majority of writings focus on its geomorphology. Adam C. Maloof et al. (2009) provided a geological study map of Lonar and highlighted the Lonar Crater as a well-preserved Basalt trap of the Deccan peninsula, making it a rare analogue for impact structures compared to the planets and the moon. In the study, it is discussed how the primary feeder stream to the lake enters the crater at the northeastern head of Dhar Canyon, providing Lonar with drinkable water even during the dry months, and how Dhar Canyon empties into Lonar Lake via a delta, where banana growing is presently practised. Below the main Dhara (stream), another perennial water source emerges as a spring some 65 m below it. According to the paper, Temple Ramgaya is located on the east side of the crater floor. This portion of the crater is home to a small permanent spring, and during dry years, the lake lacks a stream exit, causing a thick layer of salt to accumulate on the lake bed.

The paper refers to Little Lonar, suggested by Fredriksson et al. (1973) and Fudali et al. (1980), a second impact crater associated with the meteorite that created the Lonar Crater, as an elliptical depression, and the Lonar Crater rim as an area that sees chickpea farming. Fudali et al. (1980) discuss how the ejecta blanket's high porosity reduces surface runoff while also preserving the ejecta through light ground shrub cover. The condition has shielded the crater rim and cavity from more recent buildings, but not the full ejecta blanket, according to the report.

Lonar crater's dense forests have been spoken about as comprising custard apple, eucalyptus, lemongrass, bamboo, teak, and medicinal plants with rich alkaline angiosperms bio-diversity (Malu et al., 2000 cited by Tambekar et al. (2012)). The study mentioned that the medicinal value of various fruits and vegetables in the Lonar region is known, but the antibacterial potential of medicinal flora is poorly or not studied (Tambekar et al, 2012).

D. H. Tambekar et al. (2010) spoke of Lonar as one of the well-preserved impact structures on the earth as a meteoritic impact crater in basalt rock. The paper talks about the uniqueness of craters in hard igneous basalt rocks, and its uniqueness evokes interest and value among researchers and continues to be a popular site for many. It points out the physicochemical qualities of Lonar Lake water. The alkalinity and salinity of the lake water are decreasing, thereby proposing that it be protected and preserved.

Ranawat and George (2019) pointed out the potential geo-heritage and geo-tourism sites in India which includes Lonar and that India has yet to get any of its sites on the list. Singh and Meenakshi (2018) say that the biodiversity in the region comes from the saline lake, marshy areas all around the lake, and fresh water at the periphery, natural and artificial but the usage of toxic chemicals from fertilizers, insecticides and a pesticide have polluted the lake water.

On suggested strategies for such geo sites as Lonar, a review of papers highlighted themes such as Geopark and geo-tourism that could turn around local development and provide conservation and sustainability. Previous research studies validate that geo-sites form an exciting study as they occur due to natural phenomena, i.e., a drop of a meteorite or any such naturally formed topography. For the upkeep and maintenance of geo-tourism activities, revenue generation is done through nature trails, hiking, academic meets, and excursions. Geo-tourism is referred to as UNESCO's 'geo-parks.' Following the Convention on Biological Diversity (CBD, 1993), which emphasized the preservation of biodiversity and the long-term use of its components and biological resources, the notion of geodiversity temporarily came into being in 1993. The relevance of geodiversity to geo-tourism, leisure activities, and geoparks has been explored. (Gray, 2008).

A geopark (a concept introduced by UNESCO in 2001) has been defined as a cohesive area endowed with extensive international archaeological heritage used to promote long-term local community development (Dowling, 2013). Within UNESCO Global Geoparks, which are distinct, coherent geographic regions, the management of sites and landscapes of worldwide geological significance is guided by a holistic approach to conservation, education, and sustainable development.

The study conducted by Herrera-Franco et al. (2020) analyzed through a bibliometric analysis the research trends in geo-tourism, using the Scopus database. The researchers found a steady growth of publications on geo-tourism since its emergence in the 1990s. The paper mentions the decade-long UNESCO initiative of Global Geoparks as a successful form of sustainable tourism. The study identified the countries that lead in geo-tourism research such as Spain, China, and the United States. The authors also observed an increasing focus on sustainable tourism practices, as well as the integration of technology in geo-tourism research. The study also noted that numerous research gaps need to be addressed in the field, particularly the need to develop a standardized definition of geo-tourism and the lack of studies on the impacts of geo-tourism on local communities. Geo-tourism rooted in geology-based tourism that caters to the niche tourists seeking knowledge about the geology and geomorphology of a site beyond the level of mere aesthetic appreciation is one of the first definitions of geo-tourism. (Hose, 1995).

The paper by Dowling and Newsome (2018) provides an overview of geo-tourism, a rapidly growing niche within the tourism industry that focuses on a destination's natural and cultural heritage. The article defines geo-tourism and outlines its key characteristics citing geo-tourism development examples from various countries, including a focus on sustainability, education, and preservation of local cultures and environments.

Ólafsdóttir R and Tverijonaite E (2018) have examined Geo-tourism as a growing field that encompasses geo-heritage management, new models for assessing geo-sites,

and other methodological approaches. Daria Chylińska in "The Role of the Picturesque in Geo-tourism and Iconic Geo-tourist Landscapes," (2018) explores the importance of the 'picturesqueness' in geo-tourism. Chylińska argues that they play a significant role in attracting tourists to geological sites and these landscapes have the power to evoke emotional responses in visitors, which can enhance their experience and make it more memorable. Chylińska identifies several iconic geo-tourism landscapes, such as Yosemite National Park, the Grand Canyon, and Uluru-Kata Tjuta National Park, that exemplify the importance of the picturesque in geo-tourism. She concludes that a deeper understanding of the picturesque and its significance can aid in the successful promotion.

Dowling (2013) analyzed that while eco-tourism and biodiversity have received greater attention from scholars for over thirty years, geo-tourism and associated concepts like geo-heritage, geodiversity, conservation, and tours are relatively new. Its primary focus is on the geology and landscapes of a region in order to promote the development of sustainable tourism. The strict position of geo-tourism has broadened to include geodiversity, geo-heritage and geo-activities. Dowling explained geo-tourism as a partnership among the Government, local people and private sectors, local businesses, outdoor companies, tour agencies, restaurants, and accommodations. (Dowling, 2009)

Hose (2012) gave the historical and theoretical aspects of geo-tourism and approaches to its sustainable management and spoke of three vital interrelated aspects (the '3G's') of modern geo-tourism, that is, geo-conservation, geo-history and geo-interpretation. A differentiation of 'geological' from 'geographical' versions of geo-tourism emerged wherein geological definition treated geo-tourism as a type of tourism, an 'approach to tourism is somewhat akin to sustainable tourism with geo-tourism aiming to bring tourism development opportunities while ensuring the conservation and geo-heritage attributes (Newsome, Dowling, & Leung, 2012).

Hose et al. (2011) have spoken about how Geo-tourism in the United Kingdom was seen as a means to promote, preserve and then conserve geo-sites and geo-morpho sites. According to Hose (2006), it is a type of niche or special interest tourism, similar to other travel categories including eco-tourism, "sustainable tourism," "alternative tourism," "educational travel," "environmental," "nature-based," and "heritage" tourism, but with potential to develop. Hose (2000, 2008, 2012) further discussed geo-tourism as a vehicle to foster geo-conservation, geological heritage and geological diversity underpinned by the concept of sustainability.

Farsani et al. (2011) discussed the significance of geo-parks while developing geo-tourism to generate new opportunities, economic activities and additional sources of income in rural regions and on the role of geo-parks in improving the local economy, encouraging the production of local products, local handicrafts involved in geo-tourism and geo-products and using innovative strategies such as niche marketing, geo-tours,

geo-products, geo-museums, geo-sports, geo-restaurants and geo-bakeries instrumentalizing local communities knowledge of the area.

Djurović P. and Mijović D, (2006) defined Geo-heritage sites as geodiversity, which could be hydrological, pedological, geological and geo-archaeological with cultural and empirical significance. Newsome and Dowling (2010) spoke of geo-tourism as focusing on geology and landscape rather than eco-tourism on natural areas, geo-tourism natural or artificial environments. It was stated that geo-tourism promotes travel to geological sites, preserves geological diversity, and fosters learning about earth sciences through self-guided tours, viewpoints, geological trails, guided tours, geo-activities, and support of geo-site centers. Planning and administration, qualified staff, lodging and services, access, and transportation would all be included. Due to local economic, social and conservation benefits, community involvement has increased, and geo-tourism development could augment residents' income generation, jobs and skill development (Farsani et al, 2011). Environmentally innovative forms of tourism that foster environmental and social responsibility should be given greater importance (Pásková, 2012).

The research study by Maitra, R., et al (2023) highlights the importance of sustainable tourism and its various factors in considering tourism resources such as natural, artificial, renewable, and non-renewable resources while developing a sustainable tourism plan.

This paper contributes by analyzing various touristic and heritage aspects of the Lonar Lake ecosystem and calls for a conservation strategy that adopts a UNESCO 'Geopark' approach to protect the unique geological and ecological site, while also supporting the local administrative vision to boost the local economy interlinking with other forms of tourism in the region.

## Findings and Discussion

Lonar is a geo site intersected by archaeological, cultural, and spiritual heritage with 27 temples, three monuments, seven temple tanks and three inscriptions inside the Crater (Ramsar Information sheet, 2020). Maharashtra Government has categorized Lonar as an 'A' Grade Tourist Place, a place of national or international importance, and receives funding from either international sources or the Government. The Committee for the Development of Tourism began in 1999 and in 2011. It sees steady science enthusiasts, wildlife lovers, and spiritual and ecotourists around the year. The connectivity to Lonar is through Aurangabad as a significant node, and through the cab or bus, it is a three-hour drive, though Aurangabad has better connectivity by rail, air and roads. Jalna is the nearest railhead for Lonar. (90 km away)

The oldest reference to Lonar dates back to the mythology-where it is spoken as the site where an incarnation of Vishnu defeated the demon-giant *Lonasur* (also called Lavansura) by emerging off the lid and leading to his subterranean cave. The

lake is mentioned in ancient and medieval literature like the Skanda Purana, and Padma Purana and has a reference as Panchapsar (five streams that feed the lake), the famous text titled 'Raghuvansh' by Kalidasa, The Ain-e-Akbari, a text by Abul Fazal speaks about the Lonar lake a place of sanctity in the biography of Akbar. The text lists it as a place for performing good works for the deliverance of ancestors. The lake has been spoken of in the text as containing minerals for manufacturing glass and soap and was used to produce saltpeter to yield revenues. (Dixit, 2012)

Surrounded by the peaks of the surrounding hills, the basin is the meeting location of the Penganga and Purna streams and is mentioned in the Latin texts of Padma Purana and Skanda Purana. It is also the preferred tourist destination for most adventure seekers. In addition to being one of the most popular tourist destinations, the wooden statue at the Hanuman temple near the lake allegedly has magnetic properties, drawing thousands of pilgrims there every year. The majority of the fourteen temples that round the Lonar Crater Lake are in ruins.

The mythological antecedents and references to Lonar Lake and its geological uniqueness, wildlife, and temples make it culturally rich as a place of worship. The Great Temple at Lonar, Buldhana District, imaged in the Allardyce Collection (1860) is one of the finest temples in the area, whose exterior walls are covered in sculpture and are seen on the old photographs of the British Library by Robert Gill. Trainman, the official site (provides train-related intelligence), states that Lonar Lake is the "Bowl of Mysteries" as the lake has been enigmatic to researchers, astronomers, geologists, ecologists, and even NASA.

Ajanta, the Ellora caves, and the Daulatabad fort are close to Lonar and are heritage-wise attractions. Daulatabad Fort, founded by Yadavas and named Devgiri, is a unique fort in Maharashtra, which has structures belonging to the 11th to 16th centuries AD. There are various prominent structures, including stepped wells, Chand Minar, Hammam, Chini Mahal, Rang Mahal, and Bharat Mata temple. Ellora Caves comprises famous rock shrines representing a mix of three different religions - Buddhism, Jainism, and Hinduism. The Buddhist group consists of primary 12 caves, 17 Hindu group caves, and Jain group 5 caves. Ellora Caves tour is 30 km from Central Aurangabad in the northwest direction. The historical heritage of the Ajanta caves exhibits a mix of awe-winning structures, luxurious carvings, and the richness of ancient Indian culture. The architecture reflects Buddhist influence. Every cave has exquisite wall paintings that form the middle of the tourist attractions. Pitalkhora Cave, about 40 km from Ellora, stands as a reserved part of the forests, and this cave exhibits a revolutionary architecture of cave engineering. Shirdi, a famous pilgrimage site dedicated to Shree Sai Baba, is a prominent tourist attraction about 250 km from Lonar.

Lonar is a geological, archaeological, and cultural tourist site and a notified National Geo-heritage monument. Lonar wetland comprises the villages of Lonar, Lonai, Patel Nagar, and Sabunpura, while the agricultural fields are seen on the Eastern,

Western, and Northern sides. Lonar Crater (declared by the Smithsonian Institute of Washington DC and the Geological Survey of India) is among the largest crater lakes in Asia and the third-largest natural saltwater lake. The crater exists as a natural lake, and the water is saline due to the outflow that leads to mineral concentration as the lake water evaporates. (Ramsar sites Information, 2020). The Lonar crater, located at 19°58'N, 76°31'E, is among the most well-studied and conserved craters in India.

The Argon dating technology indicated a crater created around 570000 years ago, whereas the thermoluminescence study estimates the age of the lake to be 52000 years old with a 6000-year adjustment on each side. (Dey, 2019). The crater on which the lake is located has a diameter of 1.8 km, making it one of the most notable impact craters. The lake's mean diameter is around 3900 feet or 1.2 km. It has an ejecta blanket-covered impact crater that has been well-reserved, as well as slopes, a crater lake, a crater basin, sweet water springs, Little Lonar, and Amber Lake, which never dries out. The experts described a few advantageous features that the springs are perennial, the higher groundwater level in the basin. Owing to high concentrations of sodium chloride, carbonate, fluoride, and bicarbonate, it has high alkalinity.

The two streams flow straight into the lake, making them similar to the lake's water sources. There is a sweet water well near the lake's southernmost point. (Chandran et al, 2022). Lonar has been mentioned as the third-largest natural saltwater lake in the world. (The first one is Bosmatvi Lake in Ghana) (Trainman, 2020) Lake offers various benefits in the form of salts and minerals of therapeutic value. Restoration projects can be undertaken to improve water quality and preserve the lake's unique features. It can serve as a valuable research site for scientists studying the area's geology and ecology.

A recent study by IIT Bombay drew up the similarities between the minerals in the lake soil and the minerals found in the moon rock which was brought back during the Apollo mission. (Fernandes, 2019). In 2021, NASA Earth Observatory captured images of a 50,000-year-old Lake with experts pointing out that the color was due to the salinity and presence of algae.

There are just three known meteorite impact craters in India: Lonar in the Deccan Volcanic Province, Ramgarh in the Vindhyan Supergroup, and Dhala in the Bundelkhand Craton. Other possible meteorite impact craters in India include Luna in the Rann of Kutch, Shiva in the western offshore basin, Kaveri in the southern granulite terrain, and Simlipal in the Singhbhum Craton. (Chandran et al, 2022) The presence of basaltic target rocks at Lonar adds to its significance because it may be compared to meteorite impact craters formed on other planetary bodies with basaltic target rocks, such as Mars. (Newsome et al., 2010; Fredriksson et al., 1973)

The primary source of water in the crater is rainwater. Because the lake's evaporation exceeds its intake during the dry season, the lake gets groundwater inflow, lowering its level. Because the pH of the water is higher than 10.5 it is not recommended for



drinking, farming, or industrial use. Nonetheless, geologists have described its hydrological services—such as sediment retention, nutrient recycling, local temperature management, and organic matter accumulation—as priceless.

As explained by Maharashtra Tourism Twitter, Mr Gajanan Kharat, the salinity in the lake has increased due to falling water levels and has become warmer, resulting in the growth of algae, which turns reddish in warmer temperatures and hence the colour of the lake turns pink. (Physorg, 2020). The Hindu (2020) saw the pink colour comes from a pigment produced by Haloarchaea or halophilic archaea.

The distinct sodic environment of Lonar is home to a diverse array of microorganisms, including planktons, cyanobacteria, and anaerobes. Lonar's unique sodic ecosystem supports a unique blend of micro-organisms, ranging from anaerobes to cyanobacteria and planktons. The area has lush greenery and is surrounded by basalt rock and maskelynite. In addition, the wetland is home to 30 tree species, 10 shrub species, 13 climber species, 8 herb species, and 6 grass species. Faunal diversity includes 12 species of mammals, 160 species of birds, 46 species of reptiles, seven species of amphibians, and 14 species of molluscs. (Ramsar Information Sheet, 2020). The wetland forms an essential site for the migratory bird species of the Central Asian Flyway in winter. (Ramsar Information Sheet, 2020).

Species are native to the Indian subcontinent and are known for medicinal properties—the Indian lilac has a significant presence here. The 2000 designation of Lonar Wetland as a Wildlife Sanctuary placed it under the control of the Melghat Tiger Project, Additional Chief Conservator of Forests, Amravati.

The crater and its surroundings distinguish themselves from the rest of the dry arid region by containing a rich biodiversity in the neighbourhood, which is surrounded by a forest cover, providing habitat for a diverse range of plant and animal species. (Chandran et al, 2022). Leopards, monkeys, wild boars, and migratory birds may be found in the forest around the crater and lake site, which is a designated wildlife sanctuary and a component of the Melghat tiger reserve. There are several sanctuaries close to Lonar, such as the Dyanganga wildlife sanctuary near Buldhana, Around Lonar, there are other sanctuaries like the Dyanganga wildlife sanctuary in Buldhana, Katepurna in Washim and other wildlife sanctuaries in Akola, Painganga and Tipeswar. Maharashtra has a total of six national parks and thirty-six wildlife sanctuaries. The wildlife tourists trickle in steadily over the whole year. Migratory birds also flock to the lake during the winter months, making it an ideal place for bird watchers and wildlife enthusiasts.

The use of chemical fertilizers and pesticides has been causing pollution of the lake. Construction and expansion of residential areas have seen deforestation illegally carried out. Polluting of streams by littering by devotees by disposing of coconut shells, petals, and torn plastic bags. Biodiversity is threatened owing to the sewage dump in the lake. There is a lack of effective solid waste disposal or enough public facilities.

Waterlogging is affecting flora and fauna, encroachment, hunting, and firewood collection are activities damaging the geo-site and the environment. Development plans by the Government are there but do not give high benefits in terms of employment opportunities or adding to tourism and conservation efforts taken are limited.

The second Ramsar site in Maharashtra has been designated as Lonar Crater, the first being Madhameshwar, Thane Creek. The Ramsar Convention, which was originally established in 1971 in Ramsar, Iran, aims to stop the global loss of wetlands. The term "Ramsar sites" implies that they are wetlands of international importance under the convention. (2020, Chatterjee). In Maharashtra, there are two such Ramsar sites - Nandur Madhameshwar and Lonar. There are 46 Wetland sites in India (Ramsar, 2021). The benefits of being a Ramsar site include the ability for the locals to engage in sustainable forestry, fishing, agriculture, and tourism by utilizing renewable resources.

The Ramsar Convention aims to conserve the wetlands and the biological diversity globally and sustain human life through ecosystem maintenance to foster eco-tourism services that benefit the people. It fosters cooperative partnerships and contributions from non-government and community-based organizations in the strategic development of these wetlands. Various wetlands have benefited from several small and medium businesses linked to tourism, hospitality, bird watching, and fishing, having developed in various such regions and protecting the indigenous heritage. (As seen in the Danube Valley and Australian Wetlands).

While legal protection is there, re-vegetation has been partially implemented, while habitat manipulation/enhancement is limited in the Lonar region. Catchment management initiatives are partially implemented, rare species regulation, management measures, and Threatened species management programs have been partially implemented, management of waste status is partially implemented, water management limited, the communication, education, participation, and awareness activities have been partially implemented (Ramsar information Sheet, 2020). The process of sensitizing the local community regarding the conservation of the ecosystem needs continuous efforts from the authorities.

On the offerings side, a survey of the existing tour packages for Lonar, as seen on the companies' websites such as Yatra.com, Thomas Cook, Tour Travel, Unnayan Tours, and Thrillophilia, either some packages are only standalone for Lonar visits or others for Lonar crater visits are packaged with nearby heritage sites such as Ajanta and Ellora. The packages covered a guided sightseeing experience consisting of a geo-site visit, history, and heritage-related talk, pilgrimage or cultural fairs, or a visit to adjoining heritage sites or wildlife parks, either by bus or private car travel. Some packages included night stargazing packages. Geo tourism-based activities educational or contrails, or branding around knowledge-based or local heritage or local products were not seen in the packages in any elaborate way being offered. Information on Lonar

is either seen on the Buldhana administrative website or on websites where Lonar is listed as a national geo-heritage site or on the Ramsar website. A dedicated website for the geo-site was not seen and neither was any management body with multiple stakeholders' representation.

Buldhana district's (under which Lonar comes) demographic profile indicates that the total population in the district is over 25 lakhs and a gender divide exists in terms of count of the population, male literacy rates are 91% and female literacy rates are higher than the national average and at 76% indicating that education-based activities or innovative strategies if applied for boosting small or medium businesses it could bring greater employment to the employment in the region. (Table 1). The average literacy rate is 81.85 % for rural and 89.08 % for urban areas in the Buldhana district which implies that knowledge-intensive activities, conservation-related events, or marketing or ICT integration brought literate human resources could augment the efforts.

Table 1. Number of households, Population, Male-Female Population, and Literacy rates in Buldhana.

	Particulars	Number
	Total Number of Household	560089
	Total Population of District	2586258
	Total Male Population	1337560
	Total Female Population	1248698
	% of Urban Population to the total population	0.2122
	Literacy Rate	83.4
	Male Literacy Rate	90.54
	Female Literacy Rate	75.84

Source: Demographic Information as per Census 2011. Retrieved from <https://buldhana.nic.in/en/demography/>

Geo-tourism which entails education-related activities, management, conservation, eco-tourism, tour guiding, wildlife or biodiversity management or event management, ICT integration, networking, digital marketing, research, curation, lifestyle or tourism-related enterprises and services along with governance could bring job opportunities, better prospects and local development in the region while preserving the unique geological heritage. Tourism infrastructure boost, marketing and geo activities along

with areas rich heritage and ecological richness have the potential to bring greater jobs and tourist influx, Recently, the Nagpur bench of the Bombay High Court directed the Maharashtra government to establish Lonar Crater Lake Development Authority to conserve the Lonar crater lake.

### **Geopark Approach and promoting geo-tourism in Lonar**

A UNESCO Global Geopark must display the geological history of international significance, but its main objective is to explore, develop, and celebrate the linkages between the region's natural, cultural, and intangible heritages and its geological heritage. The designation of UNESCO Global Geoparks is granted for a duration of four years, following which each one undergoes a comprehensive re-examination as part of a revalidation process to assess its quality and functionality. All pertinent local and regional stakeholders and authorities in the region are involved in the bottom-up process that creates UNESCO Global Geoparks (e.g. landowners, community groups, tourist operators, indigenous people, and local organizations). Strong political and public support for the formation of strong local multiple partnerships, a strong commitment to the process, and the development of a comprehensive plan that will achieve all community goals while showcasing and protecting the region's geological history are required from the local communities.

For becoming a UNESCO Geopark, the geological heritage is expected to hold international value, to be assessed by the experts on which Lonar could qualify as it is a rare impact structure and has recognition internationally under the Ramsar Convention. All parties involved in UNESCO Global Geoparks must come to an agreement on a management strategy that takes into account the social and economic needs of the local population while protecting their cultural identity and the natural surroundings. This strategy has to be all-inclusive, including the UNESCO Global Geopark's collaborations, infrastructure, finances, governance, development, and communication. Global Geoparks support peace-building efforts by fostering greater understanding between disparate groups and hence, networking is a critical requirement.

UNESCO Global Geoparks mainly promote local, sustainable economic development through geo-tourism. A UNESCO Global Geopark must be well-known in order to encourage geo-tourism in the area. It must be possible for residents and guests of the UNESCO Global Geopark to get relevant information. It is important that the region's geological and other sites are connected by a thorough map, booklets, and a dedicated website to facilitate the dissemination of knowledge. A UNESCO Global Geopark also needs an established business identity. The visibility of a UNESCO Global Geopark is essential to promoting geo-tourism in the region. Both locals and visitors to the UNESCO Global Geopark must be able to locate pertinent information. In order to disseminate knowledge, the area's geological and other sites are connected by a

comprehensive map, pamphlets, and a special website. An official business identity is also necessary for a UNESCO Global Geopark.

In addition to working with the local community within the UNESCO Global Geopark, a UNESCO Global Geopark also collaborates with other UNESCO Global Geoparks via the Global Geoparks Network (GGN) and regional networks for UNESCO Global Geoparks. This allows the geoparks to share knowledge and enhance the quality of the UNESCO Global Geopark label collectively.

Through geo-tourism, UNESCO Global Geoparks primarily supports local, sustainable economic development and Lonar could benefit hugely from this approach. The Geological Survey of India has identified twenty-six sites across countries to develop geoparks, The application of the Schumpeterian approach, innovation, diversification, clusters, creating macro and micro linkages at a local level, with creative industries, focusing on authenticity, quality in services, marketing, technology integration and bringing community participation foremost can be the source point for employment generation in a culturally diverse country and can lead to economic development and more employment (Mishra, 2021).

## Conclusion

The Lonar crater and its surrounding areas can be further promoted as a Geo Park tourism destination for geo-tourism, ecotourism, cultural tourism, religious and heritage tourism, educative, medicinal, and adventure and wildlife tourism incorporating smart tourism technologies too. India has only one crater, as listed by UNESCO. Therefore, the ancillary facilities of Lonar Lake must match international standards. Lonar Crater can be marketed for cultural and crater tourism due to its unmatched uniqueness of being the only crater listed in the Geological Survey of India. Lonar's geological, archaeological, and historical significance coupled with heritage and tourism spots-temples and religious attractions-create a lot of potential in the region for linking Geo Park based geo-tourism with other forms of tourism in the region that can bring a unique destination branding that could be further enabled by smart tourism tools and boost local economy and protect the site.

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## Young Voices

### An Analysis of the Plastic Policy in the Global South

Riya Pawar<sup>1</sup>, Abhiniti Gupta<sup>2</sup>

#### Abstract

*The exacerbating problem of Plastic Policies in the Global South calls for our attention. This paper, with the help of the Multiple Streams Framework, comparative case study and fieldwork, seeks to analyze the Plastic Policies in the Global South, specifically in the Indian context. It provides a comparative analysis of the plastic regulation policies in India and South Africa. Both countries are grappling with the pervasive problem of plastic pollution and consequent emissions through recycling initiatives, but they have adopted distinct approaches to address this environmental challenge. India has implemented a multifaceted strategy while South Africa relies primarily on economic incentives such as levies and taxes on plastic bags and single-use items. This article aims to shed light on the diverse strategies employed by nations facing similar challenges and the lessons that can be learned from their experiences in regulating plastic use. We conclude that supportive and synergetic policies like stress on alternatives, awareness campaigns, research and development are required to effectively eliminate the plastic problem.*

**Keywords:** Plastic Policies, Multiple Streams Framework, Global South

#### Introduction and Review of Literature

The Plastic Problem remains unaddressed due to the prevailing habitual linearity in consumption coupled with policy lethargy. Moreover, Inefficient production, management and recycling systems have resulted in missed opportunity benefits and additional costs. The problem is further worsened in developing countries due to infrastructural, technological, and institutional inadequacies. Despite the lack of coherent solutions in force (Chen, H. L, 2021) many countries have tried to incorporate solutions to the plastic problem.

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<sup>1</sup> Co-Founder, Project Urvi  
Email: pawarriya409@gmail.com

<sup>2</sup> Co-Founder, Project Urvi

Plastic policies can tackle Production/Product Design, Consumption/Use, Disposal/end-of-life and Circular approaches. A majority of the policies focus on the Consumption and Disposal.

The production of plastic involves significant consumption of oil. The petrochemicals used to produce virgin polymers and other products account for eight per cent and 14 per cent of total primary demand for gas and oil, respectively, and will soon become the world's biggest driver of oil demand after aviation, trucks and shipping. (International Energy Agency (IEA)). Production schemes are rarely enunciated as part of discourse or mitigative strategies. Plastic is a resource-intensive material throughout the entire production process.

Disposal mechanisms are limited with a preference for incineration, reliance on waste pickers and abandoning plastic waste (Velis, C. A., & Cook, E. 2021). While limited policies target actual production or incorporate circular practices. Barriers to the circular use of plastic face numerous technological and institutional hindrances.

The consumption approach aims to control plastic consumption through measures such as bans, taxes and incentives. However, one must skillfully incorporate economically incentivizing policies bearing factors of intrinsic motivation in mind. (J. Rode, et al, 2014). Stringent policies tend to be more effective in such cases (Wang, B., Zhao, Y., & Li, Y. 2021). Hence consumption regulations are the most feasible Global South countries.

Two major types of consumption regulating policy measures generally adopted by developing countries are Plastic Levies and Plastic Bans. In some jurisdictions, Plastic Bag Tax is framed as a levy, fee or charge (Muralidharan & Sheehan 2016)

## **Methodology**

To assess the veracity of plastic ban and plastic levies pertinent to the global south, while also assessing the policy agenda setting and adoption process, we use the Multiple Streams Framework, a Case Study of India and South Africa's Plastic Policies along with our field analysis and observations. Policy approaches like the Rational Actor Approach, do not focus on how policymakers select their approach and assess its practicality in a given context. To overcome this barrier, the Multiple Streams Framework was developed. MSF is a valuable tool for understanding the dynamics of policymaking and agenda-setting. When applied to the regulation of plastic pollution in India, it provides insights into environmental problems, potential policy solutions, and the influence of political factors on the policy process. The following section examines the effectiveness of policy solutions i.e. Plastic ban and levies implemented by developing countries in the global south, we use South Africa's Plastic Bag levy as a reference for comparison. By incorporating multiple methods of MSF, Comparative Case Studies and Field Interactions, we can visualise the process of policy adoption, implementation, effectiveness and supportive initiatives.

## ***Results and Discussions***

### ***Multiple Streams Framework:***

**Problem Stream:** In the context of plastic pollution, the problem stream represents the recognition of the environmental challenges posed by plastic waste. The problem of plastic pollution in India is increasingly recognized due to its negative impact on the environment, water bodies and public health. Cases of plastic-filled rivers, ocean pollution and damage to wildlife have drawn attention to this issue. An example of the consequences of plastic pollution is the devastating flood in Mumbai in 2005, which was partly caused by sewers being blocked by plastic bags. Many countries designated as waste absorbers are struggling to manage their own waste while addressing the global waste crisis. According to a report by Pandit Deen Dayal Upadhyay Smriti Manch, around 121,000 tonnes of plastic were imported in 2019. Additionally, global concerns about the environmental impact of plastics have contributed to the problem's salience.

**Policy Stream:** The policy stream focuses on the development of potential solutions and policy proposals. In India, various options have been proposed, including stricter regulations on single-use plastics, extended producer responsibility, incentivizing recycling and promoting alternative materials. These ideas have been discussed by government agencies, environmental groups and industry stakeholders. Some state and local governments have already implemented plastic bans, the first being announced in 1999. Other policies such as Swach Bharat Abhiyan and Namami Gange also support efforts to combat plastic waste.

**Politics Stream:** The political stream involves the political context and the role of key actors and institutions. The politics surrounding regulating plastic pollution in India are complicated. On the one hand, there is growing environmental awareness and support for stricter regulations. However, the plastics industry is important to the economy, which creates tension for policymakers. The effectiveness of plastic regulation may also vary between states. International agreements like the Basel Convention and events can influence decisions and draw attention to the issue. The India Plastics Pact aimed to bring together various stakeholders to address plastic waste in supply chains

### ***Comparative Analysis of India's and South Africa's Plastic Policy***

To tackle the plastic problem, India adopted regulatory policy instruments (Ban) while South Africa used financial policy instruments (Levy). India, under its Plastic ban, charges a fine of Rs 1 lakh or imprisonment for 5 years under the Environment Protection Act 1986. Plastic Bans have an equivocal narrative of successes and failures. In South Africa, the levy initially charged was raised from 0.46 to 3 rands

and then to 4 rands. Plastic levy in Ireland gained laudable success. However, the effects of a similar policy in developing settings are unknown. Hence, we take up South Africa as a subject of our study to conduct a comparative analysis of policies.

Revenue-generating policy regulations are beneficial as they potentially support hinged initiatives like research, recycling, awareness campaigns, etc. The plastic bag tax in South Africa initially proved effective in generating revenue but failed in revenue mobilization to attain coherent goals. Only 13% of the revenue was received by the recycling partners (Nahman 2010) reported 'Buyisa e-Bag' (Plastic Bag recycling Partner). India has also been engaging in raids to generate significant amounts differing from state to state. (Implementation of Plastic Waste Management Rules Report, 2020-21).

Supportive policies like alternatives to discourage the habitual use of plastic bags are an aiding mechanism. No alternatives to plastic bags were discussed in South Africa. (Bezerra, J. C., et al., 2021). In the Indian context, they are comparatively widely discussed. Non-profits and Self-help Groups have started intervening to provide alternatives to ban single-use plastic commodities. Our interaction with Keshav Srushti had valuable insights. In Palghar district, KSGVY has initiated a bamboo handicraft industry for producing plastic alternatives for Diwali lanterns, rakhis, etc. A part of the women's workforce is also involved in stitching cloth bags as an alternative to plastic bags. The bamboo and cloth bags were specifically started after the plastic ban. Additionally, NGOs started work along with the South Delhi Municipal Corporation (SDMC), and its volunteers got cloth bags made out of upcycled cloth. However, on a utilitarian basis, using cloth bags has many discouraging lethargies on the part of the consumers.

Due to the hindered alternatives to plastic bags in South Africa, the consumption level soared after 3 months of implementation. (Dikgang et al. 2012). India, the ban policy has been severely inconsistent in reaping any fruitful results. The repeated bans imposed by the Indian Government with subsequent relaxations have been in a constant cycle since 1999 (Science. wire). But during our field visit to supermarkets (D-Mart, Reliance Supermarket), we discovered that paper bags or cloth bags have very well replaced plastic ones.

The majority of violations and leniencies prevail among local vendors and businesses, making the policy tedious to micro-manage. While interacting with a local cloth vendor, we encountered that his plastic bag stock was majorly due to consumer demand and he was helpless. But alternatives have now penetrated among retail giants suggesting positive developments. A similar problem was evident in South Africa as well.

## **Conclusion**

The MSF suggests that the convergence of these three streams—problem, policy, and politics—can lead to policy change. Policy entrepreneurs, individuals, or organizations, can play a crucial role in coupling the stream and push for policy

change. At the same time addressing consumer behaviour in relation to plastic policies is also a determining factor.

When comparing the two countries, limited synergies in supportive policies can be observed. The Indian government is banning plastic, but approving plastic parks is concerning. These supportive policies like community engagement, strengthening the plastic waste system, raising awareness and introducing stricter fines or levies need to be introduced.

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**Unveiling the Exclusion:**

***Exploring India's Urbanization Experience and its Effect on  
Marginalized Communities***

Arslan Wali Khan<sup>1</sup>

**Abstract**

*The rapid urbanization observed in India over the past decade, primarily in its large and medium-sized cities, has brought to the forefront the need to comprehend the dynamics of urban growth and inclusivity. As urban migration intensifies, it becomes crucial to examine the ways in which marginalized communities are often excluded from the benefits of the country's urban expansion. This Article delves into the avenues through which India's marginalized groups face exclusion from the evolving urban landscape.*

**Keywords:** Urbanization, Marginalization, Segregation, Gentrification

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**Introduction**

Historically marginalized communities such as Dalits and Muslims have endured systematic exclusion for generations. The caste-based social hierarchy has subjected Dalits to discrimination, and limited access to quality education, employment opportunities, and adequate housing. Moreover, Muslims have faced marginalization due to factors like economic disparities, religious bias, and inadequate representation in urban planning processes.

Muslims in India are the most Urbanised religious community. 35% of the Muslims live in towns in cities, urban Muslims are also comparatively poorer than rural Muslims. Muslims are also on the margins of the structure of socio-economic and political relevance in India. Incidents of violence post-independence have sustained the Dynamics of segregation. According to the Sachhar Committee report

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<sup>1</sup> PhD Scholar at National Institute of Advance Studies, Bengaluru  
Email: Arslankhan5133@gmail.com

fearing security Muslims are increasingly resorting to living in ghettos across the country and it had serious consequences for the community. Ambedkar had asked Dalits to move towards urban India to avoid casteism but post-liberalisation, urbanism has failed to fructify this promise of emancipation For Dalits and Muslims and is to an extent responsible for their marginalization and segregation. In the context of contemporary urbanization, challenges persist for these communities. Land and housing policies often disproportionately affect them, resulting in inadequate living conditions and limited access to essential services. Furthermore, unequal educational opportunities and limited job prospects continue to perpetuate cycles of poverty and exclusion.

### **Economic Disparity in Urban Centres**

The process of urbanization in India has led to both economic growth and increased inequality. Marginalized communities, like Dalits and Muslims, often face unequal access to resources, education, and employment due to rising property values and gentrification. Scholars like Thomas Piketty and David Harvey highlight the impact of these disparities. Piketty emphasizes the importance of equitable wealth distribution, while Harvey critiques how capitalism and urbanization concentrate power and wealth, often excluding vulnerable groups. Addressing these challenges requires inclusive urban planning and policies that ensure equal access to housing, education, and opportunities for all.

### **Gentrification, Beautification, and the Displacement of Poor**

Foreign Direct Investment (FDI) contributes to urban development through beautification projects, but these can lead to gentrification and the displacement of poor communities. The Delhi Development Authority (DDA), responsible for urban planning, has faced criticism for projects like the Turkman Gate redevelopment, which resulted in the displacement of long-standing low-income residents. To balance economic growth with community well-being, inclusive urban planning, and affordable housing options are essential to prevent the negative consequences of forced displacement and social exclusion.

### **Identity-Based Marginalisation in the Global Urban**

Identity-based marginalization of Dalits and Muslims in urban India is a complex problem shaped by social, economic, and political factors. Arjun Appadurai's concepts, like "ethnoscapes" and "mediascapes," offer insights into how globalization and urbanization impact identity. In urban areas, discrimination and unequal access to resources affect these groups in areas like housing and education. Appadurai's ideas help us understand the intersection of urbanization and marginalization, emphasizing the need for inclusive development that promotes equality and social cohesion.

Arjun Appadurai's concepts provide insights into how globalization and cultural shifts intersect with these dynamics, influencing perceptions and interactions within

societies. Promoting awareness, education, and inclusive policies is essential to addressing this problem and creating more equitable and harmonious societies.

### **Changing Occupational Pattern Post Liberalisation**

The economic competition and changing occupational patterns among Muslims and Dalits in urban India are significant aspects of social transformation. Over the years, both groups have experienced shifts in their traditional occupations due to urbanization, economic changes, and evolving social dynamics.

Historically, Dalits were relegated to low-status and menial jobs due to the caste system, while Muslims were often engaged in various trades and crafts. However, in urban areas, economic opportunities have expanded, leading to changes in occupational choices for both groups. Urbanization has brought about shifts from agrarian-based work to jobs in manufacturing, services, and the informal sector. Despite these changes, both Muslims and Dalits often continue to face challenges. Discrimination, bias, and lack of access to quality education and resources can hinder their upward mobility. Additionally, traditional norms and societal perceptions might persist, affecting their ability to access certain jobs or roles.

Efforts to address these challenges include providing equal access to education, skill development, and training programs. Creating a supportive environment that ensures fair employment opportunities and reduces bias is crucial. Recognizing and valuing the diverse skills and talents of individuals from these communities can contribute to a more inclusive and economically vibrant urban society.

### **Migration of Disadvantaged Communities**

Communities in India to urban areas is a significant phenomenon that has both positive and negative implications. Many individuals and families from rural or marginalized backgrounds move to cities in search of better economic opportunities, education, and improved living conditions. However, upon arrival in urban areas, these communities often face various challenges. Limited access to affordable housing, quality healthcare, education, and formal employment opportunities can exacerbate their disadvantaged status. Overcrowded and informal settlements lacking basic amenities can lead to health hazards and social disparities.

While urban migration provides an avenue for upward mobility, it's crucial to ensure that the process is accompanied by proper support systems. Comprehensive urban planning should prioritize the inclusion of these communities, considering their unique needs and circumstances. This involves providing affordable housing, access to healthcare and education, and opportunities for skill development and formal employment.

In addressing these challenges, collaboration between government agencies, non-governmental organizations, and local communities is essential. Empowering disadvantaged communities through targeted policies and initiatives can contribute



to their integration into urban life, fostering a more equitable and sustainable urban environment.

## Conclusion and Way Forward

To address these issues effectively, a theoretical framework should embrace the complexities of the problem. It must encompass aspects such as unequal land distribution, inadequate housing policies, and the interplay between economic development and social integration. Moreover, a gendered perspective could shed light on how exclusion disproportionately impacts women within urban poor communities. In the pursuit of such a framework, interdisciplinary collaboration becomes crucial. Sociologists, urban planners, economists, and policymakers need to pool their expertise to unravel the intricate web of exclusion. Quantitative and qualitative methodologies should be employed to capture the multifaceted nature of the problem and to generate insights that can drive evidence-based policies.

Bridging the research gap on the exclusionary dimensions of urbanization in India is essential. A robust theoretical framework, considering diverse communities and their unique challenges, will enable a more nuanced understanding of the problem. By addressing these complexities, policymakers can formulate interventions that ensure urbanization benefits all strata of society, mitigating the adverse effects faced by the urban poor and fostering inclusive, sustainable development.

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# CONTRIBUTORS

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Abhiniti Gupta	<i>Co-Founder, Project URVI</i>
Aditi	<i>Research Scholar, Dept. of HSS, Indian Institute of Technology Patna, Bihar</i>
Amod Moharil	<i>PhD student at Ashank Desai Centre for Policy Studies, IIT Bombay</i>
Anshula Mehta	<i>Researcher, IMPRI</i>
Apoorv Agrawal	<i>Bihar Institute of Economic Studies, &amp; Mayo College, Ajmer</i>
Archana Mishra	<i>Assistant Professor, Jai Hind College (Autonomous), Mumbai</i>
Arjun Kumar	<i>Director, IMPRI Impact and Policy Research Institute, New Delhi</i>
Arslan Wali Khan	<i>PhD Scholar at National Institute of Advance Studies, Bengaluru</i>
Joy Karmakar	<i>Lecturer, Serampore College, Hooghly, India</i>
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Rekha Maitra	<i>PGT-Tourism, GD Goenka School, East Delhi</i>
Riya Pawar	<i>Co-Founder, Project Urvi</i>
Sameer Unhale	<i>Joint Commissioner, Department of Municipal Administration, Government of Maharashtra; Urban Practitioner; Visiting Senior Fellow, IMPRI</i>

**Soumyadip  
Chattopadhyay**

*Associate Professor Professor at the Department of Economics and  
Politics, Visva Bharati University and Visiting Senior Fellow, IMPRI*

**Suparba Sil**

*Doctoral candidate at the Centre of Social Medicine and Community  
Health, School of Social Sciences, Jawaharlal Nehru University*

**Vibhuti Patel**

*Visiting Distinguished Professor, IMPRI*

# PUBLISHERS

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### **SAMIA ZENNADI**

Samia Zennadi is the Chairperson of IMPRI Impact and Policy Research Institute, New Delhi. An archaeologist by training, a publisher, and an editor based in Algeria, she is also a co-founder of APIC éditions and a Founding Member of the Global University for Sustainability. She has written a book on carpet craft in Algeria and oversaw the ‘Espace Panaf’ at the 15th International Book Fair of Algiers. She is a former member of the organizing committee of the International Festival of Literature and Youth Book (2008 to 2010). She started a literary magazine ‘L’Afrique parle livres’ and formerly organized the ‘Frantz Fanon’s Spirit event.’

### **ARJUN KUMAR, PHD**

Arjun Kumar heads the Secretariat for Impact and Policy Research Review (IPRR). He is the Director of IMPRI Impact and Policy Research Institute, New Delhi, and was recently a China-India Visiting Scholars (CIVS) Fellow at Ashoka University. He holds a Ph.D. in Economics from Jawaharlal Nehru University (JNU). With training in development economics, he specializes in quantitative and qualitative research methods, econometrics, and the use of statistical software to crunch big data. He has been associated with several think tanks, governments, civil society organizations, and private enterprises. He is the President of a Jharkhand-based NGO, Manavdhara. His research interests are in political economy, development studies, housing and basic amenities, urban and regional research, inclusive and sustainable development, data and evidence-based policy, and, research methods.

### **ROHIT MEHTA**

Visiting Researcher and Assistant Manager (IT & Digital), IMPRI

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Researcher & Assistant Director, IMPRI Impact and Policy Research Institute, New Delhi

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[iprr.impri@gmail.com](mailto:iprr.impri@gmail.com) | [editorial.impri@gmail.com](mailto:editorial.impri@gmail.com)

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